# Maryland Inventory of Historic Properties Addendum

MIHP Number: AA-2177

Property Name: U.S. Naval Academy Dairy Farm
Property Address: Gambrills, Maryland
Anne Arundel County, Maryland

The Navy and the Trust previously agreed that the U.S. Naval Academy Dairy Farm (AA-2177) is eligible for inclusion in the National Register of Historic Places under Criteria A and C for its association with an important local industry and for its role in the history of the U.S. Naval Academy. The Dairy Farm is a significant twentieth century farm complex. Established in 1913 specifically for the Naval Academy, the Dairy Farm supplied the Academy with fresh, healthy dairy products for over eight decades. In doing so the farm operated under stringent, sanitary regulations promoted by the dairy industry at the time. The farm is the only facility of its kind associated with a military academy. The farm's buildings are representative of the evolution of construction methods employed for twentieth century dairy farms. The division of the complex into functional areas, including an employee residential area and the core diary buildings, illustrates a carefully planned and efficient farm layout.

Although both agencies had concurred on eligibility, we had not resolved the status of the property's contributing and non-contributing resources. On September 3, 2008, staff from the Navy and the Trust's Review and Compliance and National Register Units conducted a comprehensive site visit of the property in order to conclusively resolve the issue of contributing resources. Based on the discussion and results of that site visit, the Trust prepared the thorough list of contributing and non-contributing resources, with the accompanying maps.

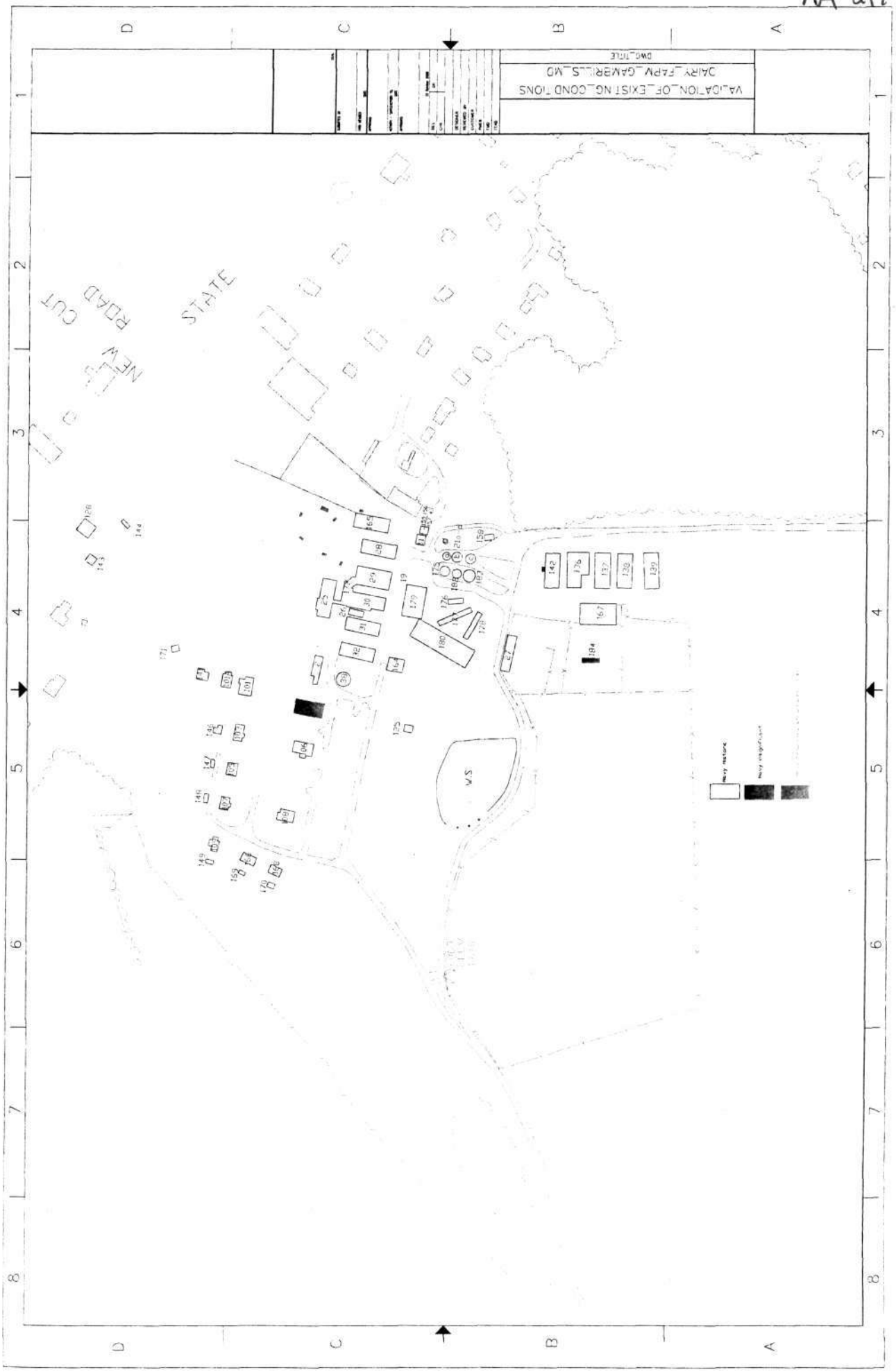
| Building Number | Descriptive Title | Date of Constr. | 2008 MHT Designation |
|---|---|---|---|
| 1 | Pavilion | | non-contributing |
| 2 | Fire House | 1915 | contributing |
| 11 | Granary | 1970 | contributing |
| 21a | Silo | | contributing |
| 21b | Silo | | contributing |
| 21c | Silo | | contributing |
| 21d | Silo | | contributing |
| 25 | Administrative | 1915 | contributing |
| 26 | Chemical lab | 1918 | contributing |
| 28 | Barn | 1915 | contributing |
| 29 | Barn | 1915 | contributing |
| 30 | Barn | 1915 | contributing |
| 31 | Barn | 1915 | contributing |
| 32 | Barn | 1916 | contributing |

| | | | |
|---|---|---|---|
| 38 | Reservoir | 1916 | contributing |
| 43 | Grain Elevator | 1941 | contributing |
| 101 | Housing | 1939 | contributing |
| 101A | Housing | 1939 | contributing |
| 103 | Housing | 1917 | contributing |
| 105 | Housing | 1917 | contributing |
| 106 | Housing | 1914 | contributing |
| 107 | Housing | 1917 | contributing |
| 108 | Housing | 1918 | contributing |
| 109 | Housing | 1914 | contributing |
| 125 | Septic Tank | 1929 | contributing |
| 128 | Housing | 1937 | contributing |
| 130 | Heifer Barn Remote in Field | | contributing |
| 136 | Storage | 1947 | contributing |
| 137 | Storage | 1947 | contributing |
| 138 | Storage | 1947 | contributing |
| 139 | Storage | 1947 | contributing |
| 141 | Housing | 1953 | contributing |
| 142 | Shop | 1951 | contributing |
| 143 | Garage | 1937 | contributing |
| 144 | Garage | | contributing |
| 146 | Garage | 1917 | contributing |
| 147 | Garage | 1917 | contributing |
| 148 | Garage | 1917 | contributing |
| 149 | Garage | 1917 | contributing |
| 155 | Grain Elevator | 1941 | contributing |
| 156 | Grain Elevator | 1956 | contributing |
| 157 | Grain Elevator | 1941 | contributing |
| 158 | Fuel Storage Building | 1948 | contributing |
| 164 | Barn | 1956 | contributing |
| 165 | Barn | 1957 | contributing |
| 166 | Housing | 1957 | proposed |
| 167 | Hay Storage | 1957 | contributing |
| 169 | Garage | 1957 | contributing |
| 170 | Garage | 1958 | contributing |
| 171 | Garage | 1958 | contributing |
| 172 | Dairy Plant/Milking Parlor | 1963 | contributing |
| 175 | Silo | 1965 | contributing |
| 176 | Covered Feeder | 1965 | contributing |
| 177 | Covered Feeder | 1966 | contributing |
| 178 | Covered Feeder | 1966 | contributing |
| 179 | Loafing Shed | 1966 | contributing |
| 180 | Loafing Shed | 1966 | contributing |
| 182 | Silo | 1968 | contributing |
| 183 | Silo | 1968 | contributing |
| 184 | 4-H Field Shelter | | non-contributing |

Besides structures there are also landscape elements that contribute to the USNA Dairy Farm complex. These features include the Dairy Lane driveway approach off of RT.175, the interior road circulation pattern around the residential area and barns, and two (2) brick gate pillars in the residential area between houses 108 and 107.

There are a number of temporary structures built after the Navy occupation of the farm that are non-contributing elements. These structures include eight (8) field animal shelters, a ticket booth and a children's play structure near the parking lot.

AA-2177


VALIDATION_OF_EXISTING_CONDITIONS
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JAIRY_FAPV_GAMBRILS_MD
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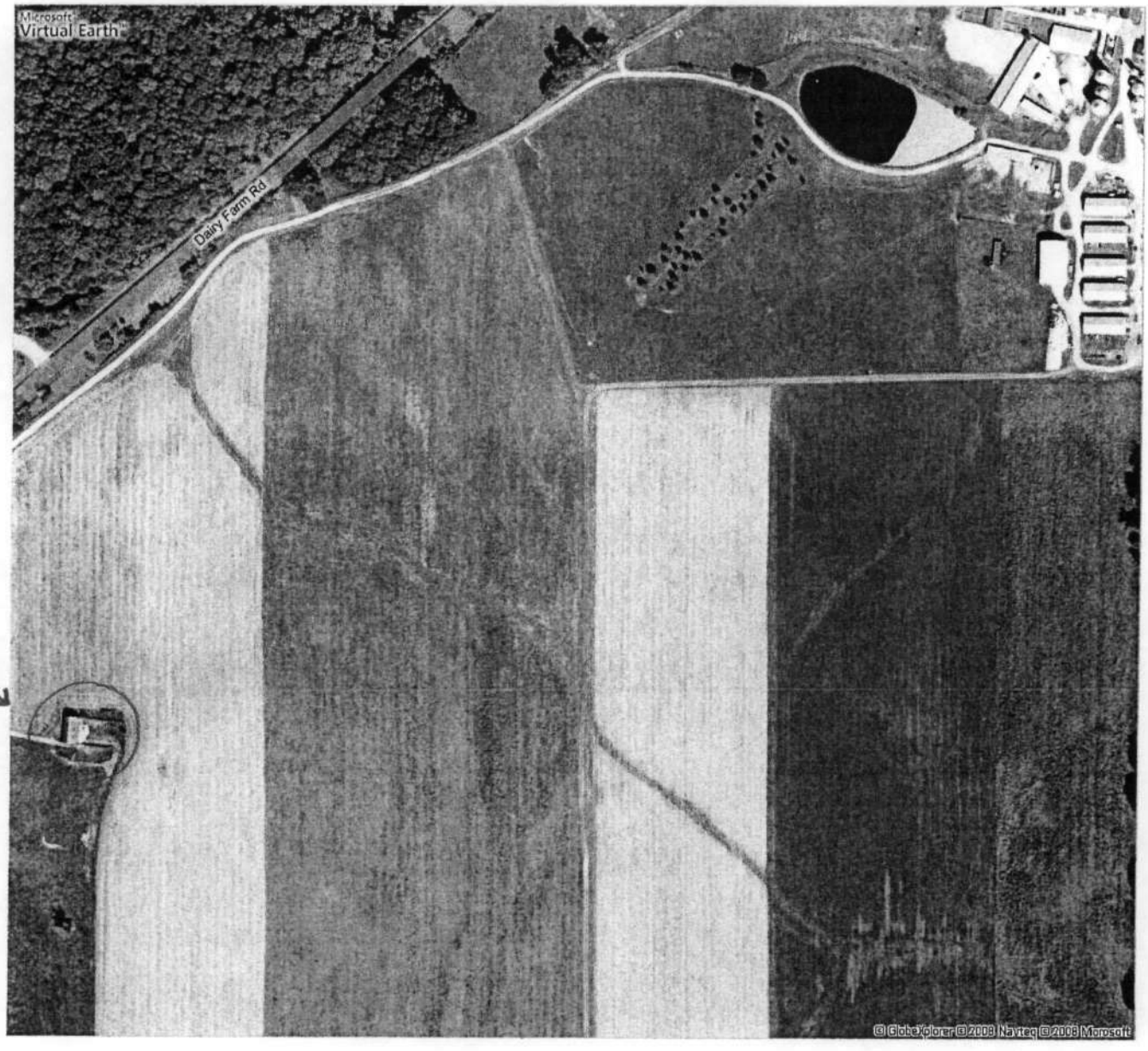
Live Search Maps

AA-2177

USNA Dairy Farm (~~AA-2271~~)
Building 130
Heifer Barn Remote in Field



# MARYLAND HISTORICAL TRUST
# DETERMINATION OF ELIGIBILITY FORM

**NR Eligible: yes ___ no ___**

Property Name: United States Naval Academy Dairy Farm  Inventory Number: AA-2177

Address: Dairy Farm Road  Historic district: X yes ___ no

City: Gambrils  Zip Code: 21054  County: Anne Arundel

USGS Quadrangle(s): Odenton

Property Owner: United States Naval Academy  Tax Account ID Number: 05952000

Tax Map Parcel Number(s): 573  Tax Map Number: 30

Project: Architectural Resource Survey at the USNA Dairy Farm  Agency: United States Naval Academy

Agency Prepared By: Louis Berger Group, Inc.

Preparer's Name: Kristie Baynard  Date Prepared: 7/5/2007

Documentation is presented in: MIHP form and addendum

Preparer's Eligibility Recommendation: ___ Eligibility recommended  X Eligibility not recommended

Criteria: ___A ___B ___C ___D  Considerations: ___A ___B ___C ___D ___E ___F ___G

*Complete if the property is a contributing or non-contributing resource to a NR district/property:*

Name of the District/Property:

Inventory Number:  Eligible: ___ yes  Listed: ___ yes

Site visit by MHT Staff ___ yes X no  Name:  Date:

Description of Property and Justification: *(Please attach map and photo)*

Architectural Description

The USNA Dairy Farm as surveyed by the Louis Berger Group (Berger) in 2007 is comprised of 58 buildings, 22 structures (grain tanks, pump houses, bunker silos for example), three sites (foundations), and one object (a statue) providing a total of 84 resources. Thirty-eight of which are non-historic meaning younger than fifty years. The historic buildings include 11 houses, eight garages, five cow barns, a fire house, pasteurization building, chemical laboratory, two barns, a fuel storage building, a dairy plant, five tractor/hay/storage barns, and a bull barn/horse stable. The historic structures and sites on the dairy farm include a water tank, one grain elevator with four silos, an in-filled well, and four separate foundations.

Buildings and structures built within the last fifty years include a picnic pavilion, gate house, playhouse, pump house, two dwellings, two sheds, twelve animal shelters/loafing sheds, a dairy plant, six grain tanks and one grain dryer, one vehicle storage building, three covered troughs, two bunker silos, two garages, a sewage pumping station. There is one object on the dairy farm, which is a statue that appears to have been added circa 2000. Each of these buildings and structures are cumulatively described in the 1996 Maryland Inventory of Historic Properties (MIHP) form by R. Christopher Goodwin & Associates (Goodwin) and the 2007 Addendum by Architectural Historian, Kristie Baynard, of the Louis Berger Group.

**MARYLAND HISTORICAL TRUST REVIEW**

**Eligibility recommended** X  **Eligibility not recommended** ___

**Criteria:** X A ___B X C ___D  **Considerations:** ___A ___B ___C ___D ___E ___F ___G

**MHT Comments:**

Jonathan Sayer  11/7/07

**Reviewer, Office of Preservation Services**  **Date**

B Smith  10/29/07

**Reviewer, National Register Program**  **Date**

200703234

The USNA Dairy Farm began in 1913 and the Naval Academy's dairy products were produced on the farm until 1998 when it was leased to an organic dairy farm operation based in Colorado. The resources, which includes all buildings, structures, sites, and objects, on the farm date between 1914 to circa 2005, with one exception, a circa 1900 barn sited in a field away from the dairy farm complex. According to a survey produced for the National Architectural and Engineering Record (NAER), the predecessor to the Historic American Building Survey, the barn was rebuilt in 1942 and then in 1991 it was given a new foundation. The NAER record did not have an original construction date.

In 1996 Goodwin recommended the USNA Dairy Farm eligible as a National Register Historic District. The MIHP form Goodwin produced does not clearly define the boundaries of the historic district; however, it is assumed that it includes the entire 857 acres of the dairy farm parcel and all standing structures. The 1996 MIHP form written by Goodwin lists 60 buildings and structures in a building inventory list along with each building's contributing status to the historic district. Following review of the 1996 MIHP form, the NAER document, and other primary information on the dairy farm, Berger concludes the 1996 inventory was not complete. The 2007 addendum by Berger provides a complete inventory of all resources (buildings, structures, sites, objects) on the dairy farm.

Inventory

Historic
Firehouse, 1915
Foundations (3), late-19th and early- to mid-20th century
Admin/Pasteurization, 1915
Chemical Laboratory, 1918
Cow Barns, 1915 (4), 1916 (1), 1957 (1)
Water Tank, 1916
Grain Elevator, 1941 (3), 1956 (1)
Single-family Houses, 1914 (2), 1917 (3), 1918 (1), 1937 (1), 1939 (2), 1953 (1), 1957 (1)
Barn, 1900/1945
Storage Buildings (4), 1947
PW Shop/Maintenance, 1951
Garages, 1917 (4), 1937 (2), 1957 (1), 1958 (2)
Fuel Storage, 1948
Bull Barn/Horse Stalls, 1956
Dairy Plant, 1957
Well, c. 1940

Non-Historic
Pavilion, c. 2005
Animal Shelter/Stalls, c. 1980 (2)
Grain Tanks (3), c. 2000
Combustable Shed, c. 2000
Vehicular Storage, c. 1970
Animal Shelters, 1966 (2), c. 2000 (7)
Animal Shelter/Hay Shed, c. 1990
Single-family Houses, 1958 (1), 1980 (1)

**MARYLAND HISTORICAL TRUST REVIEW**

**Eligibility recommended** _____ **Eligibility not recommended** _____

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_____ _____
**Reviewer, National Register Program** **Date**

Dairy Plant, 1963
Grain Tanks, 1965 (1), 1968 (2)
Covered Troughs, 1965 (1), 1966 (2)
Sewage Pumping Station, 1970
Bunker Silos, c. 2000 (2)
Pump House, c. 2005
Gate House, c. 2005
Play House, c. 2005
Grain Dryer, c. 1990
Statue, c. 2000
Shed, c. 1990

Statement of Significance and Justification
The United States Naval Academy Dairy Farm was recommended eligible under Criteria A and C as a historic district in 1996 by Goodwin in the 1996 MIHP form. In this MIHP form, Goodwin states that the dairy farm is an "example representative of a twentieth century model dairy farm for its association with an important local industry, and for its role in the history of the U.S. Naval Academy, a significant military educational institution." Additionally, Goodwin states that it is "the only complex of its type constructed specifically to support a military academy." Goodwin does not provide a period of significance for the district in the MIHP form. Berger suggests the period of significance for the USNA Dairy Farm would be 1913 to 1957 signifying the purchase of the dairy farm in 1913 by the USNA with 1957 representing the 50 year limit.

The integrity of the USNA Dairy Farm has greatly diminished in setting, feeling, association, and design. A number of original structures that made the farm a "model" dairy farm example of the early twentieth century have been demolished and over 45 percent of the existing resources are younger than fifty years old. The farm no longer retains its historical appearance nor its historical use as a dairying operation.

According to a report by the Eighty-ninth Congress Committee on Armed Services in 1966 titled Operation of a dairy farm by the United States Naval Academy, Annapolis, Maryland, Department of the Navy, the farm had 97 buildings and/or structures erected during the period 1914 to 1963. It must be noted that the report does not provide an actual building inventory of the Dairy Farm. It does state that of the 97 buildings and/or structures, that 19 were used as housing for permanent employees (a total of 45 civilian employees in 1964). The farm underwent a large number of changes in the decades following the submittal of this report. The number of buildings that currently stand on the farm that were built between 1914 and 1963 is now 46, which is only half of the total in 1966. Couple this with an additional 38 resources that are not historic, and it is clear that the dairy farm has undergone significant changes since 1963. This is a significant impact on the historical appearance of the Dairy Farm relating to its integrity of setting, design, feeling, and association.

National agricultural standards were developed during the late nineteenth and early twentieth century to help farmers create the cleanest environment possible in producing milk for human consumption. One of the most important steps in this process was the establishment of the Division of Agrostology and Dairy Division by the Bureau of Animal Industry of the United States Department of Agriculture (USDA) in 1895. These two divisions of the USDA were to improve production standards of American dairy products. Congress authorized the USDA to enforce standards in the meat and dairy industries by an act passed in 1890 and amended in 1906 (National Agricultural Library 2007; Louis Berger Group, Historic Context for Richmond Area Dairy Barns, submitted to Virginia Department of Transportation, 2003). In 1910, the USDA Bureau of Animal Industry purchased a large farm in Beltsville, Maryland (Prince George's County) a portion of which was used to construct an experimental dairy farm. The USDA

**MARYLAND HISTORICAL TRUST REVIEW**

**Eligibility recommended** _____ **Eligibility not recommended** _____

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_____ _____
**Reviewer, National Register Program** **Date**

Beltsville Farm, currently known as the Beltsville Agricultural Research Center (PG-62-14), is one of the first national model dairy farms in the country. It was determined eligible for the National Register by MHT in 2000.

There are three basic resource types that are crucial in supporting a 20th century dairy farm; cow barns, milking parlors, and silos (Beedle 2001; Eckles 1956; James 1911; Selitzer 1976; USDA 1905, 1923, 1945; Webster 1908). There are also a number of secondary buildings that are important in completing the dairying operation, which are not necessary on each dairy farm. The processes in sanitizing milk, packing, storing, and delivery may be housed in separate buildings or done by other farms or businesses thereby making those buildings secondary in necessity for each farm. For example, the machine that sanitized milk cans back in the 1920s was very large and too expensive for small-scale dairy farms. However, farmers would either create a co-op to purchase such equipment or individual farmers would contract with another business or farm to have their milk cans provided to them.

Of the three essential resources to be found on every dairy farm, silos, cow barns, milking parlors, the original silos and milking parlor on the USNA Dairy Farm have been demolished. The silos and milking parlor were extremely important in relaying the farm as a model dairy farm and without them, the dairy farm context diminishes.

Other known buildings on the farm that date to the 1910s and 1920s that have since been demolished include the maternity barn and a storehouse. Other significant historic structures that have been demolished include a power plant, horse barn, goat house, a number of worker's cottages, garages, and a dormitory/mess hall. The Dairy Farm MIHP form states that the Hammond Manor house was used as a dormitory/mess hall for unmarried employees. The Manor house (AA-172) was previously listed on the National Register and then de-listed after it burned down in 1980. A number of other buildings have been demolished; however, without a complete list of original buildings it is difficult to determine what stood on the farm during this period. The list of demolished buildings and structures was compiled from inventories taken in 1980 by the NAER, the 1996 survey completed by Goodwin and Associates, and research available through written records at the USNA Archives (USNA Record Group 405).

Many of the buildings that have been demolished played a crucial role in the dairy farm on a daily basis. These buildings were significant in portraying the farm as a "model" dairy farm for the purposes of creating a clean and sanitary environment. This environment was fashioned by separating the functions of dairying into separate buildings; milking, feeding, storage of feed, milk storage, and pasteurization. In addition, construction standards as set by the USDA used concrete walls and floors, metal windows, and ventilators (USDA 1905, 1923, 1945).

It must also be noted that the power plant was a significant structure as it related to the importance of the site selection by the USNA in 1913. The location was chosen not only because of the substantial tract size but also because of the proximity to the Washington, Baltimore, and Annapolis Electric Railway (WB&A). The connection to the railway was bi-fold; the WB&A agreed to supply the farm with power, and the WB&A provided the necessary transportation for the milk product to the Naval Academy in Annapolis. The USNA Dairy Farm connected to the railway's power supply; however, they had to supply their own transformers and other equipment to power the farm. A power plant was part of the original dairy farm, however, it was demolished prior to 1980 when the farm was surveyed for the National Architectural and Engineering Record. The WB&A was required to construct an 1,800 foot siding from the rail line to a location on the dairy farm, however, it does not appear that the rail siding was ever built.

There are a number of farm structures that date to the 1940s and 1950s but they do not significantly relate the farm's significance as a dairying operation. These include six large corrugated-metal storage buildings used for hay storage, maintenance work, and tractor sheds. These buildings do not correspond to a dairy operation because they are general farm buildings that are visible on typical grain and animal farms, not exclusively dairy farms. Additionally, grain tanks as well as buildings for hay storage relate a

**MARYLAND HISTORICAL TRUST REVIEW**

**Eligibility recommended** _____ **Eligibility not recommended** _____

**Criteria:** ___A ___B ___C ___D **Considerations:** ___A ___B ___C ___D ___E ___F ___G

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**Reviewer, Office of Preservation Services** **Date**

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**Reviewer, National Register Program** **Date**

function of providing feed to animals other than dairy cows such as cattle. Silage has been proven as the most valuable and efficient feed for dairy cows because of its high nutrient content needed to produce milk. These necessary nutrients lack concentration in hay feed and therefore any hay stored on a farm is feed for other animals such as cattle and horses.

In 1996, the USNA Dairy Farm was determined eligible as a model dairy farm supplying milk to the Naval Academy; however, the sense of a dairying operation industry is no longer evident. It is in continued use as a farm; however, it ceased dairying operations before the turn-of-the twenty-first century. All the equipment related to the sanitation and pasteurization of the milk has been removed except for a few pieces that remain as exhibits. Additionally, the equipment and stalls in each of the cow barns have been removed and the floors have been redone, removing the original interior trenches/gutters. Currently the farm is leased by the Navy to a vendor for small-scale organic farm operation raising organic beef and dairy replacement heifers as well as growing market vegetables, eggs, hay, corn, and soybeans.

The setting of the farm has changed greatly with many of the non-historic buildings (erected within the last fifty years) making up a large part of the area designated for farm operations and accounting for just over 45 percent of the total resource count. Additionally, grain tanks also dramatically change the setting and character of the farm.

Although, the USNA Dairy Farm provided "model" construction examples for dairy buildings, it was not a representative dairy farm in Anne Arundel County or Maryland. The USNA Dairy Farm was atypical because of its size and industrial nature in its design and function. In 1930 the average size of a farm in Anne Arundel County was 88.9 acres, whereas, the USNA Dairy Farm was over 800 acres from its beginning. In 1940, the average Anne Arundel County farm was just over 81 acres and there were only five farms in the county and 106 in the state that were between 700 and 999 acres. In 1929, there were 855 farms milking dairy cows in Anne Arundel County (the number dropped to 791 in 1939). The number of cows milked in the county totaled 2,766 in 1929 and 2,938 in 1939. The USNA Dairy Farm herd most likely accounted for approximately 10 percent of these values. The five fifty-cow barns on the farm are indicative of this. According to the 1966 report to Congress on the dairy farm operations, the farm maintained 377 cows, 262 calves, and four bulls. These statistics make it very clear that the operation to singularly provide all dairy products was large and complex and only compared to a few others within the county and state (USBC 1943). The change of the dairy farm in 1998 from a large-scale operation to a small-scale organic farm has considerably compromised its integrity in feeling and association.

One of the seven aspects of integrity is design, which has been compromised in the Dairy Farm district. A large number of original dairy buildings are no longer extant and there are numerous non-historic buildings and structures interspersed throughout the complex. With several of the non-historic buildings added to the complex it conveys its primary use as a farm with secondary non-agricultural functions with the additions of a picnic pavilion, a statue, gate house, and exhibits in the original buildings. Although the farm retains a moderate level of integrity in location, materials, and workmanship these aspects of integrity are not enough to convey the property's significance as a model dairy of the 1910s and 1920s farm both architecturally and historically.

References

Beedle, Peggy Lee
2001 Silos: an Agricultural Success Story. State Historical Society of Wisconsin and the Board of Regents of the University of Wisconsin, Madison.

Cheevers, James W.
1974 United States Naval Academy Dairy Farm. National Register Nomination on file at MHT, Crownsville, Maryland.

**MARYLAND HISTORICAL TRUST REVIEW**

**Eligibility recommended** _____ **Eligibility not recommended** _____

**Criteria:** ___A ___B ___C ___D **Considerations:** ___A ___B ___C ___D ___E ___F ___G

**MHT Comments:**

_____ _____

**Reviewer, Office of Preservation Services** **Date**

_____ _____

**Reviewer, National Register Program** **Date**

DuPuis, E. Melanie
2002 Nature's Perfect Food: How Milk Became America's Drink. NYU Press, New York.

Eckles, Clarence
1956 Dairy Cattle and Milk Production. Macmillan Company, New York.

James, W.D.
1911 Helpful Hints for Him Who Builds a Dairy Barn. Kent Manufacturing Company.

Louis Berger Group, Inc.
2003 Historic Context for Richmond Area Dairy Barns. Prepared for Virginia Department of Transportation, Richmond, Virginia by Louis Berger Group, Richmond, Virginia.

National Agricultural Library [NAL]
2002 Early Developments in the American Dairy Industry. Exhibit, National Agricultural Library, Beltsville, Maryland.

O'Donnell, Lori, Lex Campbell, Martha Williams
1996 U.S. Naval Academy Dairy Farm (MHT id # AA-2177). Maryland Inventory of Historic Properties. Prepared by R. Christopher Goodwin & Associates for the U.S. Naval Academy. On file at Maryland Historical Trust, Crownsville, Maryland.

Pirtle, T.R.
1926 History of the Dairy Industry. Mojonnier Bros. Co., Chicago.

R. Christopher Goodwin & Associates
1996 Intensive Level Reconnaissance at the United States Naval Academy: The main campus, NSWC Annapolis Housing, USNA North Severn, and the Naval Academy Dairy Farm, Annapolis and Anne Arundel County, Maryland. Prepared for the U.S. Naval Academy by Goodwin & Associates, Frederick, Maryland.

Selitzer, Ralph
1976 The Dairy Industry in America. Magazine for Industry, New York.

United States Bureau of the Census [USBC]
1943 Sixteenth census of the United States: 1940. Agriculture. United States Bureau of the Census, Washington, D.C.

United States Department of Agriculture [USDA]
1905 Better Barns for Dairymen. Bureau of Animal Industry Bulletin No. 1. United States Department of Agriculture, Washington, D.C.

1923 Dairy-Barn Construction. Farmers' Bulletin No. 1342. United States Department of Agriculture, Washington, D.C.

1945 Functional Requirements in Designing Dairy Barns. USDA Circular No. 722. United States Department of Agriculture, Washington, D.C.

United States Naval Academy [USNA]
1913-1946 General Correspondence File, Office of the Commandant Midshipmen's Supply Department. Record Group 405.

**MARYLAND HISTORICAL TRUST REVIEW**

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**MHT Comments:**

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**Reviewer, Office of Preservation Services** **Date**

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**Reviewer, National Register Program** **Date**

Records of the Superintendent.

Webster, Ed. H.
1908 Designs for dairy buildings. Bureau of Animal Industry Circular 131, United States Department of Agriculture. Government Printing Office, Washington, D.C.

For additional information see AA-171 (Hammond Family Cemetery) and AA-172 (Hammond Manor House, Site).

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ADDENDUM

**United States Naval Academy (USNA) Dairy Farm**
**AA-2177**
**88 Dairy Farm Road**
**Gambrills, MD**
**K. Baynard, The Louis Berger Group**
**7/2007**

The survey conducted in March 2007 by The Louis Berger Group (Berger) of the USNA Dairy Farm documented all buildings and structures not previously recorded, most of which postdate 1947. The 2007 survey also revisited all previously recorded resources to document major alterations and the complex was evaluated for National Register Historic District eligibility. The 2007 survey documented a total of 84 resources on the dairy farm; 38 are non-historic and 46 are historic.

Included with the addendum is an inventory of extant resources as well as a list of known demolished buildings (Table 1). The inventory lists each building or resource number as assigned by the Real Estate Division of the USNA. Several resources have not been assigned building numbers, in which case, letters were assigned by Berger for mapping purposes. Other information provided is the original function of the building, date of construction, and if it was included in the 1996 MIHP form.

According to a report written by R. Christopher Goodwin & Associates (Goodwin) in 1996, the dairy farm complex at one time "included a power plant, a milk house, five cow barns, a bull barn, a maternity/hospital barn, a horse barn, five silos, a pump house, artesian well houses, 18 cottages for employees, and a dormitory and mess hall for unmarried employees." From this list of resources, the power plant, milk house, maternity barn, horse barn, the five silos, wells, six residences, and dormitory/mess hall are no longer extant. A list of non-extant buildings and structures was compiled by Berger from inventories taken by in 1980 by the National Architectural and Engineering Record, the predecessor to the Historic American Building Survey, by the 1996 survey completed by Goodwin and Associates, and by research available through written records at the USNA Archives (USNA Record Group 405). The list of demolished structures provided by Berger in this addendum (Table 2) is not complete due to a lack of a comprehensive list of buildings constructed on the dairy farm.

## Architectural Description

The architectural description is divided into three sections set forth in the 1996 MIHP form. The buildings included here are resources that were not included in the 1996 MIHP form.

### ***Dairying Buildings and Animal Support***

**Resource: Cow Barn**
**Building Number: 165**
**Date: 1957**
This cow barn is similar in materials, size, and form to the other cow buildings, numbers 28 through 32. It is one story, three bays wide, nine bays deep, and of concrete construction. Set on a concrete foundation, the barn terminates in a front-gable, asphalt-shingle roof. The facade is pierced with two one-over-one, double-hung vinyl windows with square-edged wood surrounds and the gable features a metal louvered vent. Windows in the long elevations are three-light hopper units over fixed three lights, each with a lug-concrete sill. Similar to the neighboring cow barns, engaged pilasters delineate the bays on the

long elevations and three tall metal ventilators are atop the roof ridge. The large rear tractor door has been replaced and sized down to accommodate a single-leaf metal door.

**Resource: Hay Shed/Animal Shelter**
**Building Number: 18**
**Date: 1990**
This small concrete-block shed was built circa 1990 and currently stores hay. Sitting on a concrete-block foundation, the building is one story and one bay wide with the door removed (hinges remain). It terminates with a side-gable, asphalt-shingle roof featuring exposed rafters.

**Resource: Animal Shelters (6), Canopy (1)**
**Building Number: 12-17 and D**
**Date: c. 2000**
In several small corrals north of Buildings 28, 29, and 165 are five animal shelters (Buildings 12-15, 17) and one canopy (Building 16). A sixth animal shelter (Building D) is on the east side of Building 165. Each of the animal shelters, built circa 2000, are one story, clad with vertical-board siding, and capped with an asphalt-shingle gable roof. One of the shelters is two bays wide and the remaining five are one bay wide. One of the one-bay shelters is used as a chicken coop and the facade is covered with a door comprised of chicken wire. The canopy structure is set on a concrete slab, is open on all sides, and is supported with square-wood posts. The gable roof is sheathed with asphalt shingles.

**Resource: Bunker Silos (2)**
**Building Number: 19**
**Date: c. 2000**
The two ground-level bunker silos are adjacent to one another sharing the center wall. The walls are built of horizontal boards attached to stacked telephone pole sections atop a concrete-slab foundation.

**Resource: Covered Troughs**
**Building Number: 176, 177, 178**
**Date: 1965-1966**
Each of the three long concrete troughs are covered with replacement corrugated-metal gable roofs. The 1980 survey indicates they were originally covered with flat roofs.

**Resource: Animal Shelters (2)**
**Building Number: 179, 180**
**Date: 1966**
Built of concrete blocks, these two rectangular-shaped structures are capped with a side-gable, corrugated-metal roof. Facing south, Building 179 is eleven bays wide including one bay with an aluminum roll-up door. Building 180 faces east towards a feeding pen where three covered troughs are placed. This shelter is seven bays wide with larger bays than Building 179.

**Resource: Animal Shelter**
**Building Number: 5**
**Date: c. 1980**
Sited to the west of Building 167, this animal shelter is one story in height, five bays wide and one bay deep. Constructed of concrete blocks, it is capped with a corrugated-metal shed roof.

**Resource: Animal Shelter**
**Building Number: E**
**Date: 1980**
This building is a one-story, concrete-block animal shelter with a corrugated-metal shed roof. The original block is five bays wide with a three bay wide concrete-block addition on the side elevation.

**Resource: Grain storage tanks and grain dryer**
**Resource Number: 6-8, 175, 182, 183, J**
**Date: 1965, 1968, c. 2000**
Manufactured by a company called C&L, the six flat-bottom grain tanks and one hopper tank were erected in various sizes. The tanks have C&L painted on their surface; however, no information was found on this manufacturer. One flat-bottom tank was built in 1965 (Resource 175) and two flat-bottom tanks were erected in 1968 (Resources 182 and 183). Resources 6, 7, 8 are flat-bottom tanks and there is one hopper tank all built after 1996. They are constructed of corrugated steel and capped with conical roofs. The flat-bottom tanks sit on poured-concrete foundations and the hopper tank is supported with steel beams. The small dryer (Resource J) is located between Resource 6 and 7. It sits on steel posts and is used to dry only very small portions of grain.

***Worker Support Buildings***

**Resource: Dwelling and garage**
**Building Number: 141, 171**
**Date: 1953**
This one-and-a-half story, wood-frame dwelling (Building 141) is raised on a concrete foundation, and terminates in a front-gable roof with a boxed cornice. The building, which is three bays wide and three bays deep, retains its original asbestos-shingle siding. The facade features a slightly off-center, single-leaf entry with a panel-and-light wood door sheltered with a gable portico supported with square-wood posts. Windows are double-hung, six-over-six wood-sash units and the side elevation is dominated with a shed-roof screened porch. An aluminum stove flue rises above the roof.

The wood-frame garage (Building 171), constructed in 1953, is one story and one bay wide capped with a front-gable, asphalt-shingle roof with a boxed cornice. Set on a concrete foundation, the garage is clad with asbestos shingles and contains double-leaf, panel-and-light wood garage doors. A single-leaf wood door provides pedestrian access on the side elevation facing the dwelling. This southwest elevation also contains a six-light metal awning window.

**Resource: Dwelling and garage**
**Building Number: 166, 169**
**Date: 1957**
This one-story, wood-frame dwelling (Building 166) is set on a poured-concrete foundation and terminates in a side-gable roof. The house, which is four bays wide and two bays deep, is clad with asbestos-shingle siding. An addition on the southwest elevation extends the facade to four bays and includes an inset corner porch. The roof was extended to cover the addition and the expansion is clad with asbestos-shingle siding with straight edges, whereas the original siding features scalloped edges. The front entry contains a single-leaf, panel-and-light wood door and the windows are one-over-one double-hung sash. One interior, brick clad, stove flue rises above the roof and a shed-roof portico shelters the front entry. The roof features a boxed-wood cornice with returns.

Sited to the rear of Building 166, is a one-story, one-bay garage (Building 169) built in 1957. Sitting on a concrete-block foundation, the wood-frame garage is clad with asbestos-shingle siding and terminates in a front-gable, asphalt-shingle roof. It contains a two-leaf garage door and the roof features overhanging eaves and a boxed cornice.

**Resource: Dwelling and garage**
**Building Number: 168, 170**
**Date: 1958**
The one-story, wood-frame dwelling (Building 168) is three bays wide, sits on a poured-concrete foundation, and is capped with a side-gable, asphalt-shingle roof. The facade features a single-leaf wood panel-and-lights wood door sheltered with a shed-roof portico supported with square-wood posts. The house is pierced with two-over-two horizontal wood-sash windows and it is clad with asbestos shingles. Rising above the roof is one interior brick flue and the roof features overhanging eaves and a boxed-wood cornice with returns. A second single-leaf entry is located on the southwest elevation.

Sited to the rear of the house is a garage one story in height and one bay wide set on a concrete-block foundation. It is clad with asbestos shingles and the entry contains two-leaf, plywood garage doors. The front-gable, asphalt-shingle roof features overhanging eaves and a boxed-wood cornice.

**Resource: Dwelling and shed**
**Building Number: L and M**
**Date: c. 1980**
This two-story, wood-frame split foyer dwelling (Building L) is three bays wide with a central entry. It has a brick veneer on the ground level story and the upper story is clad with vinyl siding. It is capped with a side-gable, asphalt-shingle roof and contains 1/1 vinyl windows. A small circa 1990 one-story, one-bay shed (Building M) stands to the southwest of the house.

**Resource: Dwelling and garage**
**Building Number: 127 and 144**
**Date: 1937**
A discrepancy on the 1996 MIHP form by Goodwin lists this dwelling and garage incorrectly as Building 128 and 143. The correct building numbers are 127 for the dwelling and 144 for the garage.

**Resource: Garage**
**Building Number: C**
**Date: c. 1940**
A garage stands on the southeast side of Building 127 and is similar to Building 144. This wood-frame garage is set on a poured-concrete foundation and is clad with asbestos shingles. It has a one-leaf garage door and a front-gable asphalt-shingle roof.

**Resource: Well**
**Resource Number: I**
**Date: c. 1930**
An in-filled well is located between Building 101 and 103. It has been covered with poured concrete.

***General Support Buildings***

**Resource: Hazardous-Flammable Storehouse**
**Building Number: 158**
**Date: 1948**
The Hazardous-Flammable Storehouse (fuel storage) was built in August 1948 according to a sign above the door. One story and one bay wide, the building, constructed of concrete, is set on a concrete foundation and terminates in a front-gable roof. A single-leaf metal door punctured with small ventilation holes is centered on the facade. A louvered vent is located in the gable above the door. The west elevation contains two two-light metal awning windows with brick rowlock sills. The roof is sheathed with corrugated-sheet metal and features overhanging eaves. An interesting detail of this building is the rough-edged stone wall that extends from the ground half-way up the wall on the east elevation, possibly foundation remnants of an earlier building.

**Resource: Winter Cow Barn**
**Building Number: 167**
**Date: 1957**
Building 167 is the largest structure on the dairy farm complex and according to the 1980 HAER survey it was built as a winter cow barn. It is now used as a tractor shed/maintenance shop. Standing one story high, this building has a concrete foundation and both the walls and arched roof are clad with corrugated-sheet metal. It is pierced with a large double-sliding metal door on the facade and the roof features overhanging eaves.

**Resource: Bull Barn**
**Building Number: 164**
**Date: 1956**
This modest one-story, concrete bull barn currently functions as a horse stable. It sits on a concrete foundation and is capped with a front-gable, asphalt-shingle roof. It is pierced with three-light metal awning windows and contains double-leaf wood doors on the facade. Four bays deep, there are two windows and two stable doors on both side elevations. The roof features wide eaves and exposed roof rafters.

**Resource: Picnic Pavilion**
**Building Number: 4**
**Date: c. 2000**
The picnic pavilion was constructed circa 2000 to be used by visiting groups to the farm including school classes. The pavilion is one story and one end of the structure is enclosed to accommodate two restrooms. The building rests on a concrete slab and is supported with square wood posts terminating in a cross-gable, asphalt-shingle roof.

**Resource: Playhouse**
**Building Number: H**
**Date: c. 2005**
The playhouse is approximately 3 x 5 feet and is of log construction with a side-gable, asphalt-shingle roof. The structure has a wood floor, and the roof features overhanging eaves and exposed rafters.

**Resource: Gate house**
**Building Number: G**
**Date: c. 2005**
The gate house is a small one story, wood-frame building with a square-shaped footprint. Set on a concrete slab, the gate house is clad with vertical-board siding, is contains four one-light casement windows and the front-gable, asphalt-shingle roof features a wide overhang on the facade.

**Resource: Electrical Shed**
**Building Number: 9**
**Date: c. 1990**
The small shed, built circa 1990, sits on a poured-concrete foundation and the walls and gable roof are sheathed with corrugated-sheet metal. One side of the building is open to provide access to the equipment being sheltered.

**Resource: Pump House**
**Building Number: 125**
**Date: 1929**
The pump house is a simple structure with metal siding covering a barrel-shaped structure.

**Resource: Foundation/Pumping Station**
**Building Number: 181**
**Date: 1970**
What remains of the pumping station is a concrete foundation. It is unclear for what the pumping station was used.

**Resource: Vehicular Storage**
**Building Number: 11**
**Date: 1979**
Built in 1979, this building is on the site of what used to be a silo (Resource number 21 as listed in the inventory). The basement associated with the silo remains and is approximately eight feet high and features a number of concrete-block support posts. The vehicular storage building atop the silo foundation is one story and one bay wide constructed of prefabricated metal and capped with a flat metal roof with overhanging eaves. It has a double-leaf sliding metal door on the north elevation.

**Resource: Pump House**
**Building Number: F**
**Date: c. 2005**
The small shelter, about three feet high is covered with plywood and capped with an asphalt-shingle shed roof. The front features overhanging eaves and exposed rafters. There are two plywood access doors on the front and one on both the east and west sides.

**Resource: Foundations**
**Building Number: 10, A and B**
**Date: c. 1900-1950**
Three sets of foundations were located near one another among the dairying resources. Two of the foundations (Resources 10 and A in the inventory) were solid concrete and appear to date to the early twentieth century. The third foundation (Resource B in the inventory) was rough stone parged with concrete.

**Resource: Statue**
**Resource Number: K**
**Date: c. 2000**
This statue depicts a man holding a large hay bale above his head. It was not inspected at the time of the survey to determine its construction materials.

***Alterations to Previously Recorded Resources***

**Building 2**
The fire building has replacement vinyl windows.

**Building 25**
One window has been in-filled with concrete blocks. A covered walkway extending from the south elevation to Building 30 has been removed.

**Buildings 28-32**
Building 29 has a new aluminum door on the front elevation.

The entry for Building 31 has been in-filled with concrete blocks.

Building 32 has an altered entryway exhibiting modern double-leaf glass doors and eight-over-eight vinyl windows.

Each of the cow barns (Buildings 28-32) no longer hold the 25 stalls on each long side of the interior and the floors were most likely redone.

***History of the USNA Dairy Farm, 1990s-2007***

After 83 years of operation, the United States Naval Academy Dairy Farm was closed in August 1998. It was no longer cost efficient for the Naval Academy to operate its own dairy when quality commercial dairy products were available at a lower cost. A ten-year lease was given to Horizon Organic Dairy, a Colorado-based operation. In October 2000, Horizon Organic Dairy Farm opened an educational center on the Naval Academy Dairy Farm, which was dedicated to teaching organic farming to the public.

Horizon Organic Dairy Farm transferred their lease of the dairy farm with the USNA to Maryland Sunrise Farm. In 2007, the USNA Dairy Farm is the largest tract of organic land in Maryland and it is the only certified organic producer in Anne Arundel County. No longer a dairy operation, the Maryland Sunrise Farm raises organic beef and dairy replacement heifers, and sells market vegetables, eggs, hay, corn, and soybeans.

Table 1: Inventory of USNA Dairy Farm Resources

| Building/ Resource Number | Name/Function | Described in 1996 MIHP | Year Built |
|---|---|---|---|
| 2 | Fire House | Yes | 1915 |
| 4 | Pavillion | | c. 2005 |
| 5 | Animal shelter/Stalls | | c. 1980 |
| 6 | Grain tank | | c. 2000 |
| 7 | Grain tank | | c. 2000 |
| 8 | Grain tank | | c. 2000 |
| 9 | Combustable shed | | c. 2000 |
| 10 | Foundations | | Unknown |
| 11 | Vehicular storage | | 1970 |
| 12 | Animal shelter | | c. 2000 |
| 13 | Animal shelter | | c. 2000 |
| 14 | Animal shelter | | c. 2000 |
| 15 | Animal shelter | | c. 2000 |
| 16 | Animal shelter | | c. 2000 |
| 17 | Animal shelter | | c. 2000 |
| 18 | Animal shelter/Hay shed | | c. 1990 |
| 25 | Admin./Pastuerization | Yes | 1915 |
| 26 | Chemical laboratory | Yes | 1918 |
| 28 | Barn | Yes | 1915 |
| 29 | Barn | Yes | 1915 |
| 30 | Barn | Yes | 1915 |
| 31 | Barn | Yes | 1915 |
| 32 | Barn | Yes | 1916 |
| 38 | Water tank | Yes | 1916 |
| 43 | Grain elevator | Yes | 1941 |
| 101 | Residence | Yes | 1939 |
| 101a | Residence | Yes | 1939 |
| 103 | Residence | Yes | 1917 |
| 104 | Residence | Yes | 1914 |
| 105 | Residence | Yes | 1917 |
| 107 | Residence | Yes | 1917 |
| 108 | Residence | Yes | 1918 |
| 109 | Residence | Yes | 1914 |
| 125 | Foundation | | 1929 |
| 127 | Residence | | 1937 |
| 130 | Barn | Yes | 1900/1942 |
| 136 | Storage | Yes | 1947 |
| 137 | Storage | Yes | 1947 |
| 138 | Storage | Yes | 1947 |
| 139 | Storage | Yes | 1947 |
| 141 | Residence | | 1953 |
| 142 | PW Shop/Maintenance | Yes | 1951 |
| 144 | Garage | | 1937 |
| 146 | Garage | Yes | 1917 |
| 147 | Garage | Yes | 1917 |

| Building/ Resource Number | Name/Function | Described in 1996 MIHP | Year Built |
|---|---|---|---|
| 148 | Garage | Yes | 1917 |
| 149 | Garage | Yes | 1917 |
| 155 | Grain elevator | Yes | 1941 |
| 156 | Grain elevator | Yes | 1956 |
| 157 | Grain elevator | Yes | 1941 |
| 158 | Fuel Storage | | 1948 |
| 164 | Bull barn/Horse stalls | | 1956 |
| 165 | Dairy plant | | 1957 |
| 166 | Residence | | 1957 |
| 167 | Barn | | 1957 |
| 168 | Residence | | 1958 |
| 169 | Garage | | 1957 |
| 170 | Garage | | 1958 |
| 171 | Garage | | 1958 |
| 172 | Dairy plant | | 1963 |
| 175 | Grain tank | | 1965 |
| 176 | Covered troughs | | 1965 |
| 177 | Covered troughs | | 1966 |
| 178 | Covered troughs | | 1966 |
| 179 | Animal shelter | | 1966 |
| 180 | Animal shelter | | 1966 |
| 181 | Sewage pumping station | | 1970 |
| 182 | Grain tank | | 1968 |
| 183 | Grain tank | | 1968 |
| 19 | Bunker silo | | c. 2000 |
| A | Foundations | | Unknown |
| B | Foundations | | Unknown |
| C | Garage | | c. 1937 |
| D | Animal shelter | | c. 2000 |
| E | Animal shelter/Stalls | | c. 1980 |
| F | Pump house | | c. 2005 |
| G | Gate house | | c. 2005 |
| H | Play house | | c. 2005 |
| I | Well | | c. 1940 |
| J | Grain dryer | | c. 1990 |
| K | Statue | | c. 2000 |
| L | Residence | | c. 1980 |
| M | Shed | | c. 1990 |

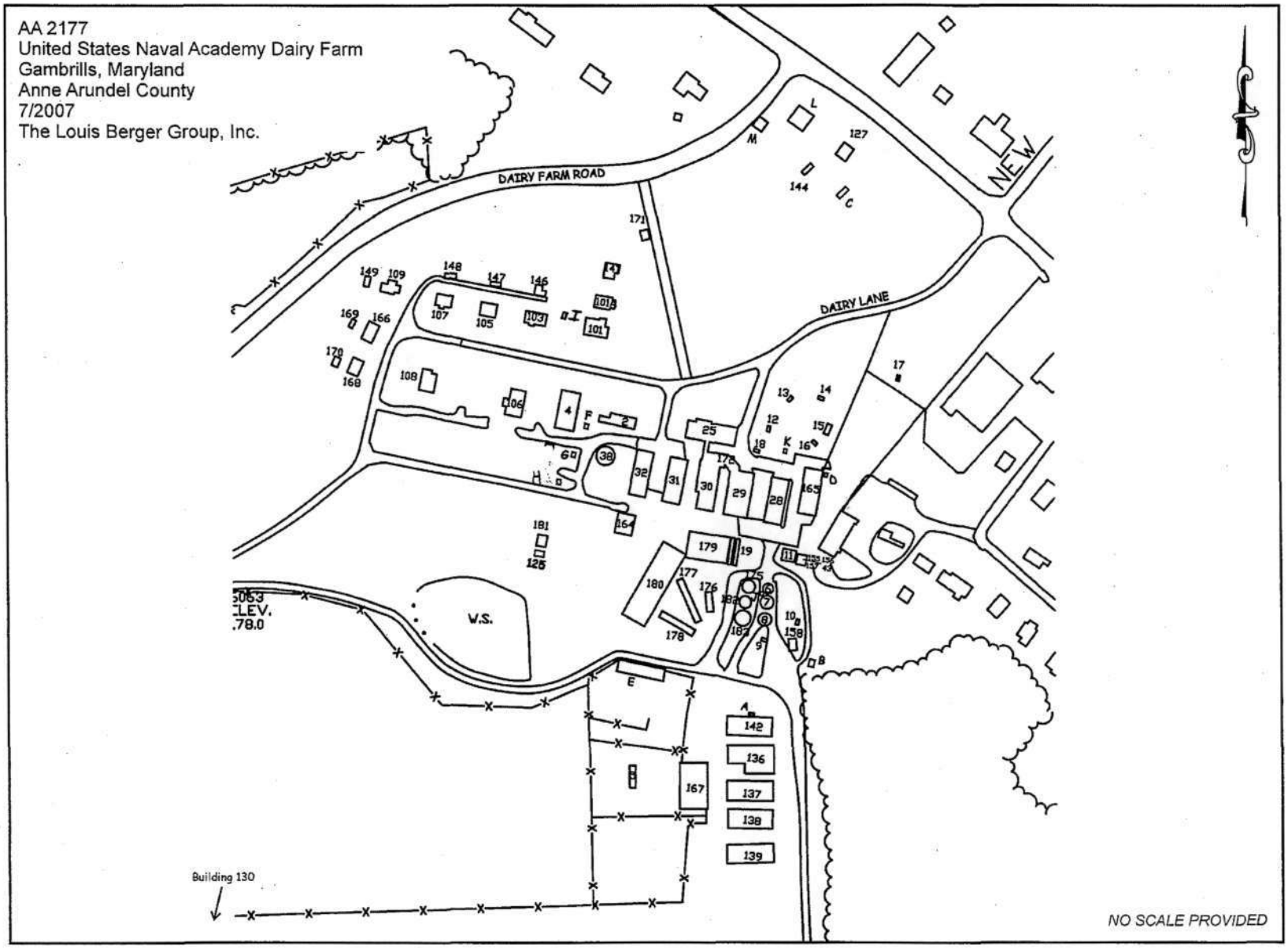
Source: NAER 1980 Inventory, 1996 MIHP form, and 2007 survey by the Louis Berger Group

Table 2: Inventory of USNA Dairy Farm Demolished Resources

| Building/ Resource Number | Name/Function | Described in 1996 MIHP | Year Built |
|---|---|---|---|
| 3 | Storehouse | | 1917 |
| 8 | Shed | | |
| 21 | Silo | | 1921 |
| 27 | Maternity barn | | 1919 |
| 106 | Residence | Yes | 1914 |
| 128 | Residence | | 1937 |
| 133 | Multiple-car garage | Yes | 1932 |
| 140 | Hay storage | Yes | 1947 |
| 143 | Garage | Yes | 1937 |
| 150 | Garage | Yes | 1918 |
| 151 | Garage | Yes | 1914 |
| 152 | Garage | Yes | 1918 |
| 173 | Calf shed | | 1962 |
| | silos (4) | | |
| | power plant | | |
| | horse barn | | |
| | Manor house – used as dormitory | | |
| | 18 worker cottages – only 12 remain | | |
| | Goat house | | |
| | Wells | | |

Source: NAER 1980 Inventory, 1996 MIHP form, and 2007 survey by the Louis Berger Group

AA 2177
United States Naval Academy Dairy Farm
Gambrills, Maryland
Anne Arundel County
7/2007
The Louis Berger Group, Inc.



AA-2177
House (#141)
USNA DAIRY FARM
ANNE ARUNDEL County, MD
K. Baynard / Louis BERGER Group
3/2007
MHT
SOUTH CORNER
1 of 95

AA-2177
Garage (#171)
USNA DAIRY FARM
ANNE ARUNDEL COUNTY, MD
K. Baynard/ LOUIS BERGER GROUP
3/2007
MHT
SOUTH CORNER

2 of 45

AA-2177
HOUSE (HAG)
USNA DAIRY FARM
ANNE ARUNDEL COUNTY, MD
K. Baynard / LOUIS BERGER GROUP
3/2007
MHT
SE ELEVATION

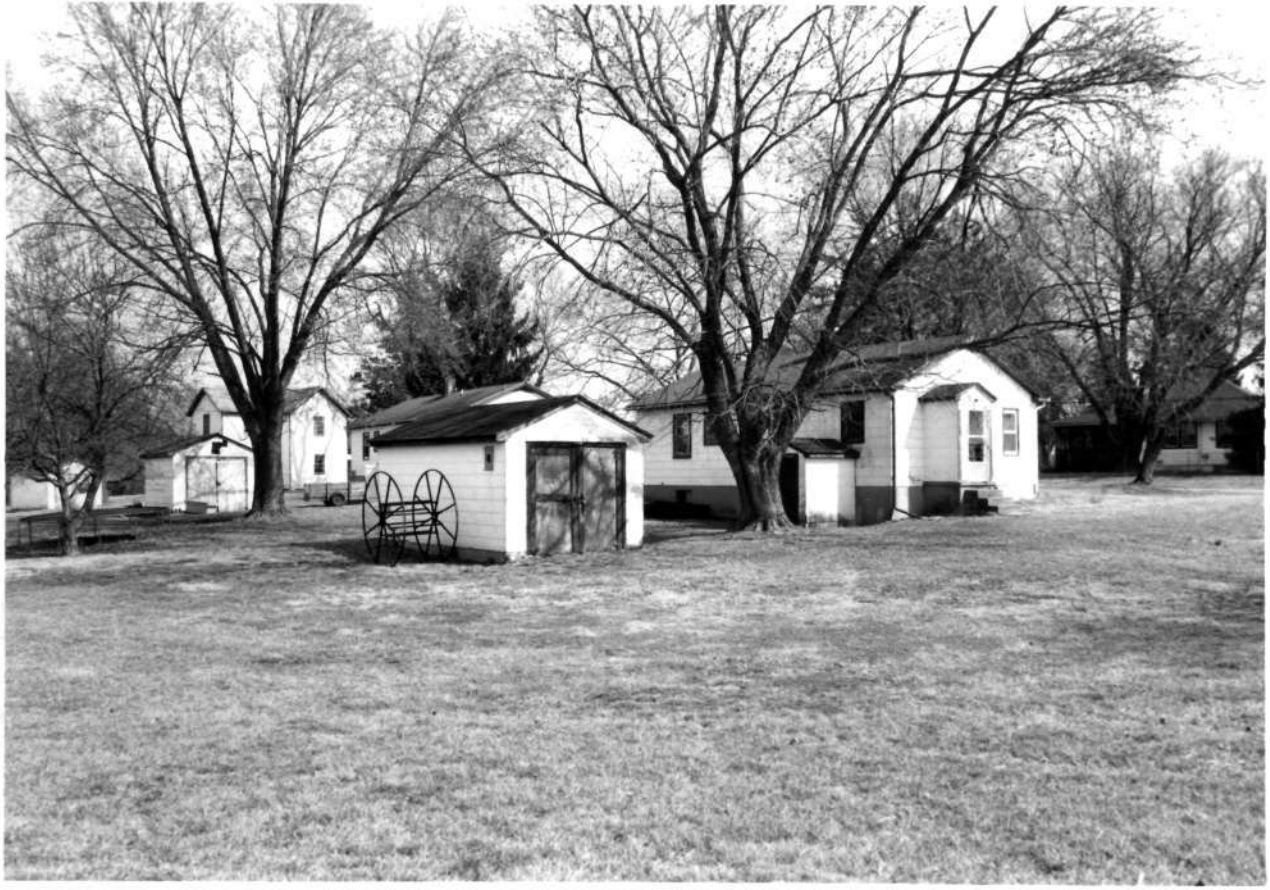
3 of 45

AA-2177
GARAGE (#169)
USNA DAIRY FARM
ANNE ARUNDEL COUNTY. MD
K. Baynard / LOUIS BERGER GROUP
3/2007
MHT
SOUTH CORNER
4 of 45

AA-2177
House & Garage (168, 170)
USNA DAIRY FARM
ANNE ARUNDEL COUNTY, MD
K. BAYNARD / LOUIS BERGER GROUP
3/2007
MHT

SOUTH CORNER, VIEW LOOKING NW

5 of 45



AA-2177
GARAGE (#170)
USNA DAIRY FARM
ANNE ARUNDEL COUNTY, MD
K. BAYNARD / LOUIS BERGER GROUP
3/2007
MHT
VIEW LOOKING NE
6 & 45

AA-2177
FIRE STATION (#2)
USNA DAIRY FARM
ANNE ARUNDEL COUNTY, MD
K. BAYNARD / LOUIS BERGER GROUP
3/2007
MHT
SOUTH CORNER, VIEW LOOKING NW
7 of 45

AA-2177
Admin / Pasteurization (#25)
USNA DAIRY FARM
ANNE ARUNDEL COUNTY, MD
K. Baynard / Louis Berger Group
3/2007
MHT
WEST CORNER, LOOKING NE
8 & 45

AA. 2177
BARN (#32)
USNA DAIRY FARM
ANNE ARUNDEL COUNTY, MD
K. Baynard / LOUIS BERGER GROUP
3/2007
MHT
NE ELEVATION, VIEW LOOKING SOUTH
9 of 45

AA-2177
Cow Barn (#31)
USNA DAIRY FARM
ANNE ARUNDEL COUNTY, MD
K. Baynard/Louis BERGER Group
3/2007
MHT
EAST CORNER
10 of 45


There is no finer investment for any
community than putting milk into babies.

AA-2177
Hyphen to barns #29 & 30

USNA DAIRY FARM
ANNE ARUNDEL COUNTY, MD
K. BAYNARD / LOUIS BERGER GROUP
3/2007
MHT
NE ELEVATION, VIEW LOOKING NW
11 of 15


progress of a nation
als are treated.

AA- 2177
COW BARN (#29)
USNA DAIRY FARM
ANNE ARUNDEL COUNTY, MD
K. BAYNARD / LOUIS BERGER GROUP
3/2007
MHT
EAST CORNER
12 & 45

AA-2177
BARN (#29)

USNA DAIRY FARM
ANNE ARUNDEL COUNTY, MD
K. BAYNARD / LOUIS BERGER GROUP
3/2007
MHT
SOUTH & WEST ELEVATIONS, LOOKING NE

13 of 45

AA-2177
COW BARN (#165)
USNA DAIRY FARM
ANNE ARUNDEL COUNTY, MD
K. Baynard / LOUIS BERGER GROUP
3/2007
MHT
NORTH CORNER
14 of 45

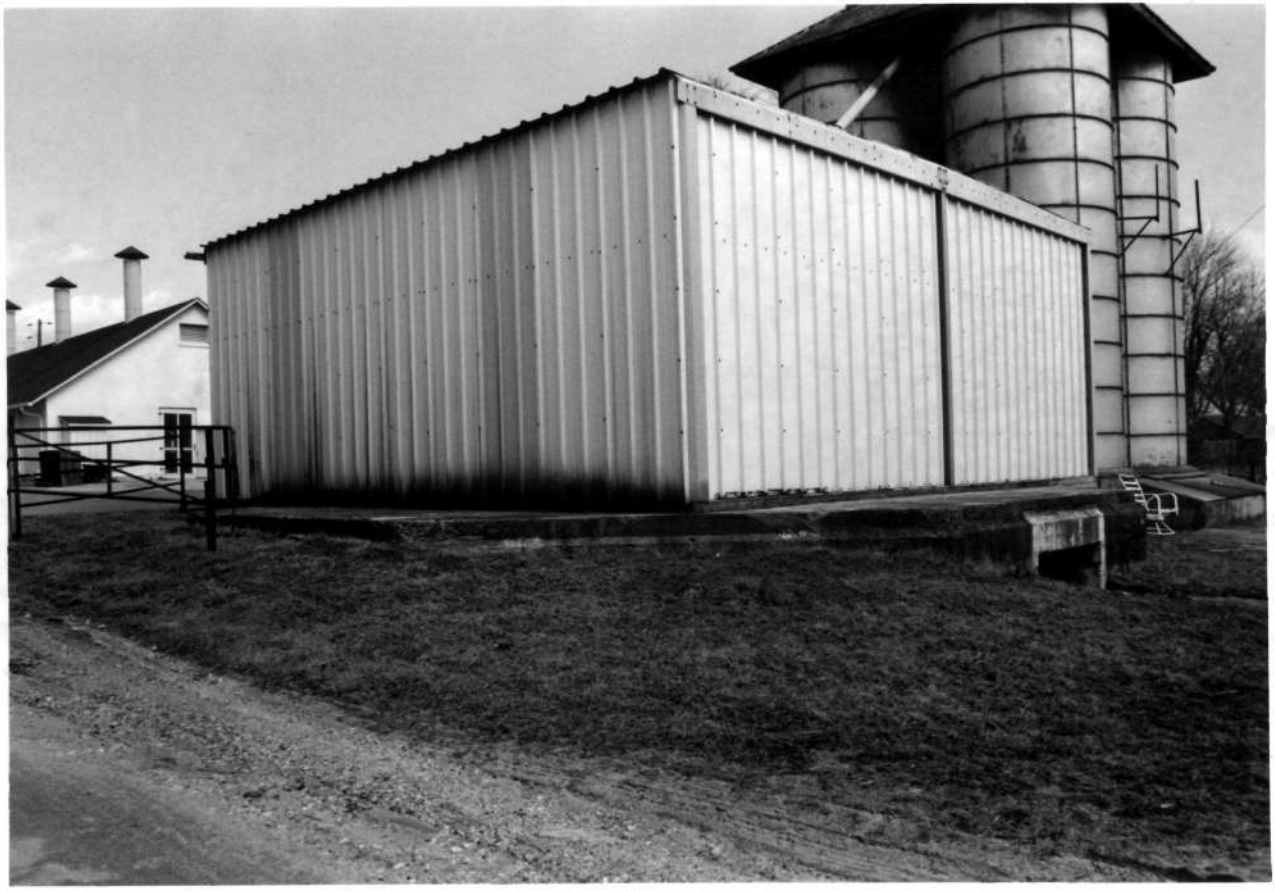
AA-2177
Cow Barn (#165)
USNA Dairy Farm
Anne Arundel County, MD
K Baynard / Louis Berger Group
3/2007
MHT
West corner, looking NE
15 of 15

AA-2177
ANIMAL SHELTER (#18)
USNA DAIRY FARM
ANNE ARUNDEL COUNTY, MD
K. Baynard / LOUIS BERGER GROUP
3/2007
M+T
WEST CORNER
16 of 95

AA-2177
ANIMAL SHED (#12, 13) & Statue (K)
USNA DAIRY FARM
ANNE ARUNDEL COUNTY, MD
K. Baynard / LOUIS BERGER GROUP
3/2007
MHT
VIEW LOOKING NW
17 of 45

AA-2177
ANIMAL SHED (#15) & CANOPY (#16)
USNA DAIRY FARM
ANNE ARUNDEL COUNTY, MD
K. BAYNARD / LOUIS BERGER GROUP
3/2007
MHT
VIEW LOOKING NE
18 of 45

AA-2177
VEHICULAR STORAGE (#11), GRAIN ELEVATOR (#155-157, 43), & GRAIN ELEVATOR (#21)
USNA DAIRY FARM
ANNE ARUNDEL COUNTY MD
K. BAYNARD/ LOUIS BERGER GROUP
3/2007
MHT
NW CORNER
19 & 45



AA-2177
Vehicular Storage (#11)
USNA DAIRY FARM
ANNE ARUNDEL, MD
K. Baynard / Louis Berger Group
3/2007
MHT
WEST CORNER
20 of 45

AA-2177
Vehicular Storage (#11)
USNA DAIRY FARM
ANNE ARUNDEL COUNTY, MD
K. Baynard / Louis Berger Group
3/2007
MHT
CELLAR, LOOKING NORTH
21 of 45

AA-2177
GRAIN TANKS (6, 7, 8)
USNA DAIRY FARM
ANNE ARUNDEL COUNTY MD
K. Baynard / LOUIS BERGER GROUP
3/2007
MNT
LOOKING SE
22 of 45

AA-2177
BUNKER SILO (#11), GRAIN TANKS (#6,7,8)
USNA DAIRY FARM
ANNE ARUNDEL COUNTY, MD
K. BAYNARD / LOUIS BERGER GROUP
3/2007
MHT
LOOKING SW
23 of 45

AA-2177
GRAIN TANKS (175, 182, 183)
USNA DAIRY FARM
ANNE ARUNDEL COUNTY, MD
K. BAYNARD / LOUIS BERGER GROUP
3/2007
MHT
LOOKING SW
24 of 45

AA- 2177
HAZ/FLAMABLE STOREHOUSE (#158)
USNA DAIRY FARM
ANNE ARUNDEL COUNTY, MD
K. BAYNARD / LOUIS BERGER GROUP
3/2007
MHT
SW CORNER
25 & 45

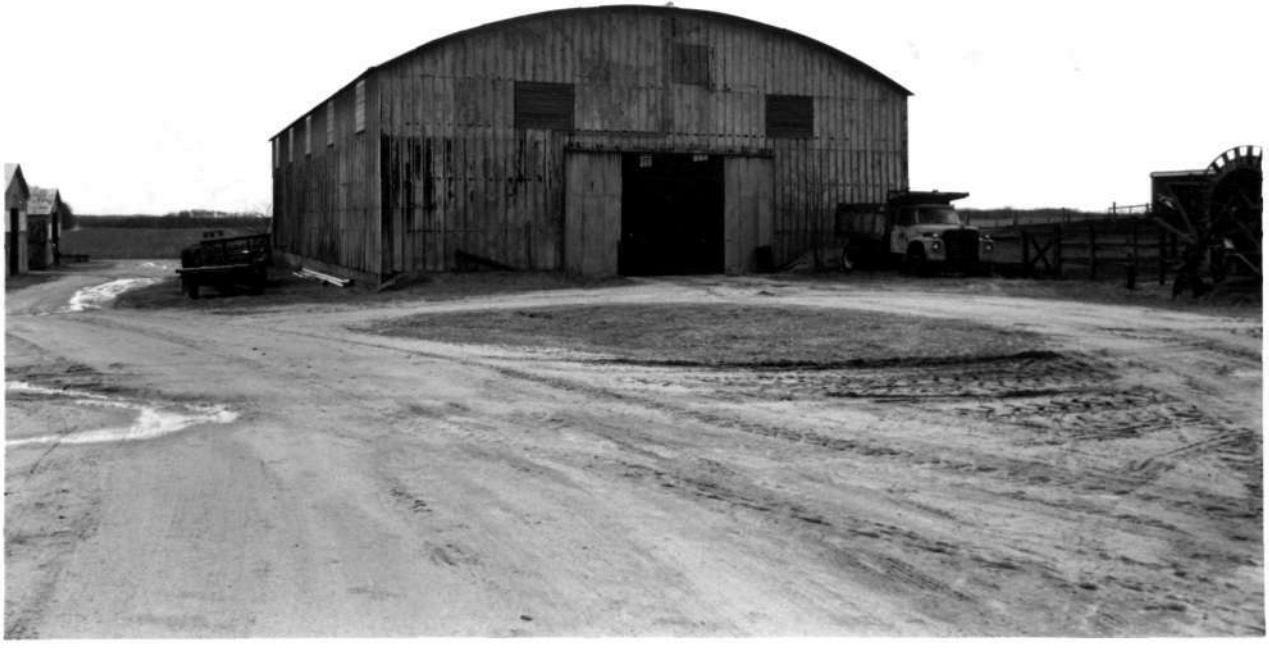
AA-2177
HAZ/FLAMABLE STOREHOUSE (#158)
USNA DAIRY FARM
ANNE ARUNDEL COUNTY, MD
K. BAYNARD/ LOUIS BERGER GROUP
3/2007
MHT
SE CORNER
26 & 45


COMBUSTIBLE
NO SMOKING

AA-277
COMBUSTIBLE SHED (#9)
USNA DAIRY FARM
ANNE ARUNDEL COUNTY, MD
K. BAYNARD / LOUIS BERGER GROUP
3/2007
MHT
NE CORNER
27 of 45


20

AA-2177
BARNS (142, 136, 137, 138, 139)
USNA DAIRY FARM
ANNE ARUNDEL COUNTY, MD
K. Baynard / Louis Berger Group
3/2007
MHT
NE CORNER, VIEW LOOKING SW
28 & 45



AA-2177
Barn (#167)
USNA DAIRY FARM
ANNE ARUNDEL COUNTY, MD
K. Baynard / Louis Berger Group
3/2007
MHT
NE CORNER
29 of 45

AA-2177
STALLS (#5)
USNA DAIRY FARM
ANNE ARUNDEL COUNTY, MD
K. BAYNARD / LOUIS BERGER GROUP
3/2007
MHT
NE CORNER
30 of 45

AA-2177
STALLS
USNA DAIRY FARM
ANNE ARUNDEL COUNTY. MD
K. BAYNARD / LOUIS BERGER GROUP
3/2007
MHT
SE CORNER
31 of 45

AA 2177

STALLS (E)

USNA DAIRY FARM

ANNE ARUNDEL COUNTY, MD

K. BAYNARD / LOUIS BERGER GROUP

3/2007

NE CORNER

32 of 45

AA-2177
Animal shelter (#179)
USNA DAIRY FARM
ANNE ARUNDEL COUNTY, MD
K. BAYNARD / LOUIS BERGER GROUP
3/2007
RHHT
SOUTH ELEVATION
33 of 45

AA-2177
COVERED TROUGHS (#177, 176, 186)
USNA DAIRY FARM
ANNE ARUNDEL COUNTY, MD
K. BAYNARD / LOUIS BERGER GROUP
3/2007
MHT
SE ELEVATION, VIEW LOOKING NW
34 & 45

AA-2177

COVERED TROUGHS (#176, 177, 178)

USNA DAIRY FARM

ANNE ARUNDEL COUNTY, MD

K. BAYNARD / LOUIS BERGER GROUP

3/2007

MHT

SE ENDS, VIEW LOOKING SW

35 of 45

AA-2177

BULL BARN (#164)

USNA DAIRY FARM

ANNE ARUNDEL, MD

K. Baynard / Louis Berger Group

3/2007

MHT

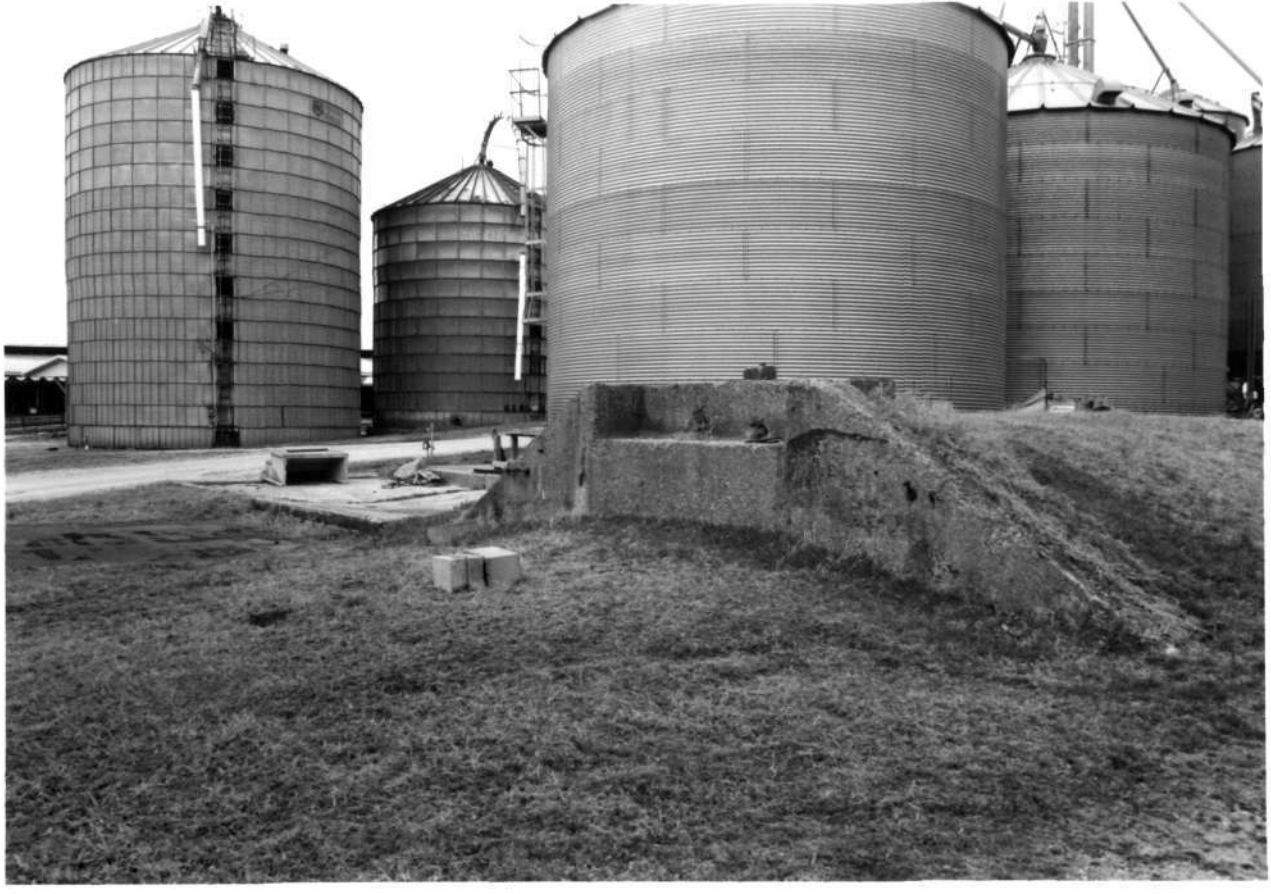
NE CORNER

36 & 45

AA- 2177
SEWAGE PUMPING STATION (#181) / FOUNDATION
USNA DAIRY FARM
ANNE ARUNDEL COUNTY, MD
K. BAYNARD / LOUIS BERGER GROUP
3/2007
MHT
VIEW LOOKING NW
37 & 45

AA-2177
Foundation (A)
USNA DAIRY FARM
ANNE ARUNDE County, MD
K. Baynard / Louis Berger Group
3/2007
MHT
VIEW LOOKING NE
38 of 45

AA-2177
FOUNDATIONS (B)
USNA DAIRY FARM
ANNE ARUNDEL COUNTY, MD
K. Bayard/ Louis Berger Group
3/2007
MHT
VIEW LOOKING NE
39 of 45



AA-2177
FOUNDATIONS (#10)
USNA DAIRY FARM
ANNE ARUNDEL COUNTY, MD
K. BAYNARD/ LOUIS BERGER GROUP
3/2007
M#T
VIEW LOOKING NW
40 of 45

AA. 2177
BARN #130
USNA DAIRY FARM
ANNE ARUNDEL Co., MD
K. Baynard / Louis Berger Group
3/2007
M#T
LOOKING NW, EAST ELEVATION
41 of 45

AA-2177
BARN (#130)
USNA DAIRY FARM
ANNE ARUNDEL, MD
K. Baynard / Louis Berger Group
3/2007
MHT
WEST ELEVATION
1/2 of 5

AA-2177
PAVILION (#4)
USNA DAIRY FARM
ANNE ARUNDEL COUNTY, MD
K. Baynard / Louis BERGER GROUP
3/2007
MHT
SOUTH CORNER, VIEW LOOKING NW
43 of 45

AA-2177
Ticket booth & playhouse (6 of I)
USNA DAIRY FARM
ANNE ARUNDEL COUNTY, MD
K. BAYNARD / LOUIS BERGER GROUP
3/2007
MHT
VIEW LOOKING SOUTH
44 of 45

AA-2177
Pumphouse (F)
USNA DAIRY FARM
ANNE ARUNDEL COUNTY, MD
K. BAYNARD / LOUIS BERGER GROUP
3/2007
MHT
SW CORNER
45 of 45

AA- 2177
United States Naval Academy, Dairy Farm
Anne Arundel County

**Capsule Summary**

The U.S. Naval Academy Dairy Farm, located off of Route 175 in Gambrills, Maryland, is a significant twentieth century dairy farm complex. Established in 1913 specifically for the Naval Academy, the Dairy Farm supplied the Academy with fresh, healthy dairy products for most of the twentieth century. In doing so, the farm operated under stringent, sanitary regulations promoted by the dairy industry at that time. The farm's buildings are representative of construction methods employed for twentieth century dairy farms.

A 1980 National Architectural and Engineering Record (Kapsch 1980) inventory documented 55 buildings on the USNA, Dairy Farm grounds. Buildings were evaluated according to the National Register *Criteria for Evaluation* (36 CFR 60.4), *categorized according to their relative historical and architectural* importance, and assigned one of five management categories. All of these buildings were assigned to Category IV.

As part of the 1996 update to the Naval Academy Historic Preservation Plan, Naval Academy buildings designated as Category IV and V and constructed before 1947 were surveyed and reevaluated for those qualities of significance and integrity identified in the *National Register of Historic Places Criteria for Evaluation* (36 CFR 60). Thirty-eight buildings were surveyed as a part of this investigation and are the focus of this documentation.

The Dairy Farm is comprised of 62 buildings and structures constructed between 1914 and 1979; 38 predate 1947. The buildings associated with dairy production, i.e., the cow barns, the pasteurization building, the chemical building, and sundry storage buildings, are one-story, and constructed of concrete. Other ancillary structures include silos, grain elevators, vehicular storehouses, and covered troughs. These buildings are predominately clustered in one area, somewhat separated from a residential area for the dairy farm workers. The residences are modest, wood frame, one- to two-story dwellings. The majority of the structures are in good condition.

Survey No. AA-2177

Magi No.

DOE __yes __no

MARYLAND INVENTORY OF HISTORIC PROPERTIES

**Maryland Historical Trust**
**State Historic Sites Inventory Form**

## 1. Name (indicate preferred name)

**historic** U.S. NAVAL ACADEMY DAIRY FARM

**and/or common** U.S. NAVAL ACADEMY DAIRY FARM

## 2. Location

**street & number** MD. RTE. 175 (ANNAPOLIS ROAD) ___ not for publication

**city, town** GAMBRILLS ___ vicinity of **congressional district** FOURTH

**state** MARYLAND **county** ANNE ARUNDEL

## 3. Classification

| Category | Ownership | Status | Present Use | |
|---|---|---|---|---|
| X district | X public | X occupied | X agriculture | ___ museum |
| ___ building(s) | ___ private | ___ unoccupied | ___ commercial | ___ park |
| ___ structure | ___ both | ___ work in progress | ___ educational | ___ private residence |
| ___ site | **Public Acquisition** | **Accessible** | ___ entertainment | ___ religious |
| ___ object | ___ in process | X yes: restricted | ___ government | ___ scientific |
| | ___ being considered | ___ yes: unrestricted | ___ industrial | ___ transportation |
| | ___ not applicable | ___ no | ___ military | ___ other: |

## 4. Owner of Property (give names and mailing addresses of all owners)

**name** SUPERINTENDENT, U.S. NAVAL ACADEMY

**street & number** MARYLAND AVENUE telephone no.: (410) 293-2293

**city, town** ANNAPOLIS state and zip code MD 21402

## 5. Location of Legal Description

**courthouse, registry of deeds, etc.** ANNE ARUNDEL COUNTY COURTHOUSE liber

**street & number** 101 SOUTH STREET folio

**city, town** ANNAPOLIS **state** MARYLAND

## 6. Representation in Existing Historical Surveys

**title** HISTORIC BUILDING INVENTORY OF THE UNITED STATES NAVAL ACADEMY

**date** NOVEMBER 1980 X federal ___ state ___ county ___ local

**depository for survey records** LIBRARY OF CONGRESS, DIVIISION OF PRINTS AND PHOTOGRAPHS

**city, town** WASHINGTON **state** DC

# 7. Description

Survey No. AA-2177

| Condition | | Check one | Check one |
|---|---|---|---|
| ___ excellent | ___ deteriorated | ___ unaltered | _X_ original site |
| _X_ good | ___ ruins | _X_ altered | ___ moved date of move _____ |
| ___ fair | ___ unexposed | | |

Prepare both a summary paragraph and a general description of the resource and its various elements as it exists today.

SEE ATTACHED SHEETS

**Summary Description**

Located in Gambrills, the United States Naval Academy Dairy Farm encompasses low-lying, open agricultural fields and a complex of 60 buildings and structures. The dairy farm was established in Gambrills in 1913 on 765.4 ac; today the property totals 857 ac. The primary entrance to the farm is off of Md. Rte. 175 (Annapolis Road). A driveway progresses south until it splits and proceeds west to the worker's residential area and south to the dairy processing plant. The structures range in date from 1914 to 1979 and can be classified into three categories: dairying, worker support, and general support. Thirty-seven buildings or structures predate 1947 and are in fair to good condition.

**Description**

Dairying Buildings

Building 25. Building 25 is a one-story concrete office and cold storage building. It rests on a concrete foundation and terminates in a hipped roof. The north elevation features a cross gable entrance bay which features a bracketed shed hood above the primary entrance, and a small window with diamond-shaped tracery at the peak. All doors are wooden panel and glass units; single doors are surmounted by two-light transoms, and five-light transoms surmount double doors. Each elevation exhibits multi-light casement and pivotal windows with concrete lug sills. The east elevation incorporates a windowless addition to serve as a refrigeration and pasteurization area; the roof at the northeast corner is extended to form a covered loading platform. The west end of the facility houses the offices. A covered walkway at the south elevation leads to Building 172. This building was constructed in 1915 as the Office/Cold Storage Building.

Building 26. This simple, one-story, concrete building rests on a concrete foundation. It is one-bay wide and three-bays deep and terminates in a front-gable roof with exposed rafter ends. The frieze consists of beaded clapboards. The front door and selected of windows have been replaced. Original, six-light pivotal windows survive on the east and west elevations. Building 26 was constructed in 1918 as the chemical laboratory, and continues as such.

Buildings 28-32. Buildings 28-32 are the five primary cow barns of the complex. Each is one-story, one-bay wide and nine-bays deep, and of concrete construction. Each barn rests on a concrete foundation and terminates in a front-gable roof. The long elevations exhibit nine, one-over-one-light windows with concrete lug sills. Engaged pilasters delineate the bays on the long elevations. The front gable ends incorporate wide double doors, and the rear gable ends display a single overhead track door. The doors open into a wide center aisle extending the length of the barn. On each side of the aisle are 25 stalls.

Three tall, metal ventilators are regularly spaced along the ridges. Each of the buildings have been modified slightly by such elements as infilled doors and windows, the addition of shed overhangs, and small lean-to additions. Metal fencing and corrals surround portions of each barn. Barns 28-31 were constructed in 1915 and Barn 32 was built a year later. The rear gable end of Barn 32 exhibits a central overhead track door flanked by single door entries (all are infilled now), unlike the other five barns, which feature only a central track door.

Buildings 43, 155-157. These structures are four metal grain elevators that terminate in hipped roofs. The hipped roofs, in turn, support a square "room" terminating in hipped roofs. Both roofs are clad with corrugated metal. Small, single sash, four-light, hopper windows are on the north and south elevations of the room, which is sheathed with standing seam metal. A single, metal ventilator punctuates the roof. The entire structure rests on a raised concrete foundation. Grain elevators 43, 155, and 157 were built in 1941, and the fourth, No. 156, was added in 1956.

Buildings 136-140, 142. These one-story, wood frame buildings rest on concrete block foundations. Each is covered with standing seam metal, and is terminated in a front-gable roof sheathed with metal roofing. The primary gable end elevation exhibits wide, sliding doors and windows, which have been covered with the metal siding. These buildings currently function as hay storage sheds. Originally, Building 136 was the carpenter's shop, Building 137 the vehicle storage building, and Building 142 the maintenance shop; the remainder were hay storage sheds. Buildings 136-139 and 140 were constructed in 1947, followed four years later with Building 142.

Building 130. Building 130 is a one-and-one-half-story bank barn raised on stone basement walls. The barn terminates in a side-gable roof sheathed with corrugated metal. The forebay, which faces east, cantilevers approximately 5 ft. Reportedly, the upper level was reconstructed in 1942 using portions of the original stone foundation from an unknown date. The first barn was associated with a farmstead established previous to the occupation of the Naval Academy Dairy Farm. Building 130 is isolated in a field distant from the main dairy complex.

Worker Support Buildings

Building 101. Building 101 is a two-story, wood frame house constructed in 1939. The building is clad with aluminum siding, and terminates in a side-gambrel roof characteristic of the Dutch Colonial Revival style. The front roof slope exhibits three shed dormers; the central dormer incorporates paired windows. The symmetrical primary elevation features a central, panelled and glass door surmounted with a semicircular hood. All windows are double-hung, six-over-one-light, wood sash units. The house is three-bays wide and four-bays deep, and rests on a concrete foundation.

A screened-in side porch is found on the east elevation. Four square, wooden columns support the porch's hipped roof. A lean-to on the west elevation incorporates a secondary entrance. The house was modified with a two-story addition appended to the rear of the house. Building 101 originally served as the headquarters house. It is currently a rental house.

Building 101a. This one-story, wood frame dwelling is raised on a concrete foundation, and terminates in a front-gable roof with exposed rafter ends. A screened-in, shed-roof porch dominates the primary elevation. Above the porch is a multi-light, wood sash lunette. Windows are double-hung, six-over-one-light, wood sash units. The building, which is three-bays wide and six-bays deep, retains the original horizontal wood siding. A shed addition was appended to the south elevation. Built in 1939, this building was a residence for a dairy farm employee. It now serves as rental housing.

Buildings 103, 105, 107, 146-148. Buildings 103, 105, and 107 are similar one-story, wood frame house designs reflecting the Colonial Revival style. Each house is supported on a concrete foundation, and terminates in a side-gable roof with jerkinhead ends; diamond-shaped ventilators are found below the jerkinhead ends. Building 103 is four-bays wide and two-bays deep, whereas Buildings 105 and 107 are just three-bays wide. The primary elevation of each house is distinguished by a protruding, entrance bay: Building 103 exhibits a front-facing gable bay, and Buildings 105 and 107 have shed roof bays. The houses are sheathed with asbestos shingles, and exhibit double-hung, six-over-one-light, wood sash windows, with exception on the entrance bays, which are covered by aluminum siding and display short, double-hung, one-over-one-light windows flanking a central wood panel and glass door. An interior brick chimney rise from the rear roof plane. Each of these houses, constructed in 1917, originally served as an employee's residence.

Located behind Buildings 103, 105, and 107 are Buildings 146-148, respectively. These one-story, board-and-batten sheds were constructed behind the above three dwellings, as well as Buildings 104, 106, and 108 (*see* below), located across the street. Each shed, which dates to 1917, terminates in a front-

gable roof with standing seam metal sheathing. Access is gained from single doors on the front elevations. A real property list records that each building was constructed as a garage, but their small size and the lack of evidence of a garage door suggests otherwise.

Buildings 104 and 151. This building is a one-story, wood frame dwelling supported by a concrete foundation, and covered with asbestos siding. The L-shaped house is three-bays wide and five-bays deep, and terminates in a hipped roof featuring flared ends and boxed eaves. All but the west roof slope incorporates a hipped dormer with louvered vents. The front door is composed of vertical wood boards with one light, and is flanked by sidelights. A shed roof porch extension partially is enclosed. A one-by-one rear addition and a bay window exhibit wood sash windows with diamond-shaped tracery at the top and bottom of the upper sash. All other windows are double-hung, six-over-one-light, wood sash units. Constructed in 1914, Building 104 is used as the dairy farm superintendent's residence. Associated with this house is Building 151, a 1914 shed located behind the house. See Buildings 103, 105, and 107 for a description.

Buildings 106 and 152. Building 106 is a one-story, wood frame house with an irregular plan and roof configuration. The core terminates in a hipped roof, which is intersected by cross-gable additions. The gabled additions feature cornice returns and small, five- and eight-light windows. Other windows are double-hung, one-over-one-light or six-over-one-light wood sash units. Two shed additions are appended to the rear (south) elevation. Constructed in 1914 as an employee's residence, it now serves as rental housing. Associated with Building 106 is Building 152, a 1918 shed located behind the house. See Buildings 103, 105, and 107 for a description.

Buildings 108 and 150. Building 108 is a one-story, wood frame house terminating in a hipped roof with exposed rafter ends. It is four-bays wide and deep, illustrating its square plan. The house's concrete foundation supports the asbestos shingle-clad walls. Each elevation exhibits double-hung, six-over-one-light, wood sash windows. The panelled front door is within a corner, screened-in porch addition. The south elevation features a small exterior porch.

This dwelling is an example of the Pyramid Cottage house type, which is characterized by its square footprint, one-story height, and pyramidal hipped roof. This house type was commonly constructed during the 1910s and 1920s; Building 108 was constructed in 1918. It served originally as quarters for workers of the dairy farm, and is currently utilized as rental housing. Associated with Building 108 is Building 150, a 1918 shed located behind the house. See Buildings 103, 105, and 107 for a description.

Building 109. Building 109 is a two-story, wood frame I House terminating in a side gable roof with boxed eaves. The house is three-bays wide and one-bay deep, and features a prominent, two-story rear ell extension. The ell and the core are supported on a brick foundation, and clad with asbestos shingles. Each elevation exhibits double-hung, six-over-six-light, wood sash windows. The front panelled door is sheltered by a screened-in, shed roof porch, and a secondary entrance on the south elevation of the ell is surmounted with a shed hood. A modern wood deck was appended to the north elevation. This house was constructed in 1914 as an employee residence. It presently serves as rental housing. Associated with this house is Building 149, a 1917 shed located behind the house. See Buildings 103, 105, and 107 for a description.

Buildings 128 and 143. Building 128 is a one-and-one-half-story, wood frame cottage resting on a concrete foundation. The dwelling is distinguished by a full-width, inset front porch, and a large, central shed dormer that punctuates the side-gable roof. The front porch is supported with replacement wood posts. The dormer exhibits a band of multi-light windows on the front elevation, and six-over-six-light, wood sash windows on the side elevations. All other windows are double-hung, one-over-one-light, wood sash units, including the two windows on a rear shed dormer. The house is three-bays deep and two-bays wide, and is covered with asbestos siding.

Building 143 is a detached garage located behind Building 128. The garage terminates in a front-gable roof, and, like the house, is covered with asbestos siding. The original garage door has been replaced. The west elevation displays a single door entry. Both the house and the garage were built in 1937. Building 128 was constructed as rental housing, and continues to be utilized as such.

General Support Buildings

Building 2. Building 2 is a one-story, rectangular, concrete building resting on a concrete foundation. The primary elevation features the original hinged wood doors with twelve-lights at the top of each door. Each elevation displays three-light pivotal windows with concrete lug sills. The building is one-bay wide and four-bays deep, and is terminates in a hipped roof with exposed rafter ends. It has been modified with two rear additions: one terminating in a hipped roof, the second in a shed roof. In 1915, this building was constructed as the fire house. Today, it survives as a garage.

Building 38. This concrete block water tank rests on a concrete foundation. The tank is 26 ft high, and 36 ft in diameter. It is terminated by a conical roof sheathed with standing seam metal. A metal ladder provides access to an opening in the roof. This water tank was constructed in 1916.

Building 133. This is a one-story, wood frame garage that rests on a concrete foundation. The walls, which are sheathed with corrugated metal, terminate in a side-gable roof. The long elevations incorporate three vehicular openings. An enclosed storage section is accessed via single metal doors. This building was constructed in 1932 as a garage; today, it functions as a garage and storage building.

Post-1947 Structures

The dairy farm consists of 24 structures which postdate 1947 (excluding Buildings 142 and 156, which are discussed above). These include: a hazardous materials storehouse; five dairy barns; three wood frame rental houses; three residential detached garages; seven covered troughs; an animal shelter; a silo; a sewage pumping station; a maintenance shop; and a vehicular storage building.

# 8. Significance

Survey No. AA-2177

| Period | Areas of Significance—Check and justify below | | | | |
|---|---|---|---|---|---|
| ___ prehistoric | ___ archeology-prehistoric | ___ community planning | ___ landscape architecture | ___ religion | |
| ___ 1400–1499 | ___ archeology-historic | ___ conservation | ___ law | ___ science | |
| ___ 1500–1599 | _X_ agriculture | ___ economics | ___ literature | ___ sculpture | |
| ___ 1600–1699 | _X_ architecture | ___ education | ___ military | ___ social/ humanitarian | |
| ___ 1700–1799 | ___ art | ___ engineering | ___ music | ___ theater | |
| ___ 1800–1899 | ___ commerce | ___ exploration/settlement | ___ philosophy | ___ transportation | |
| _X_ 1900– | ___ communications | ___ industry | ___ politics/government | ___ other (specify) | |
| | | ___ invention | | | |

**Specific dates** **Builder/Architect**

check: Applicable Criteria: _X_ A __ B _X_ C __ D
and/or
Applicable Exception: __ A __ B __ C __ D __ E __ F __ G

Level of Significance: _X_ national __ state __ local

Prepare both a summary paragraph of significance and a general statement of history and support.

SEE ATTACHED SHEETS

**Significance Summary**

The U.S. Naval Academy Dairy Farm was established in 1913 for purpose of supplying the Academy's midshipmen with healthy, high-quality milk. Prior to the establishment of the dairy farm, private contractors supplied the Academy with milk, which eventually was discovered to be contaminated due to unsanitary production methods. In 1910, the Academy established its own dairy farm on 180 ac at Greenbury Point. This property was found to be too small, so in 1913, the dairy farm was relocated to Gambrills, Maryland. The Gambrills property was formed through the consolidation of eight contiguous properties totalling 765 ac.

The farm began operation in 1914 with 36 structures, including employee housing. Expansions in the 1930s and particularly after World War II significantly increased its output. Today, after several land acquisitions, the farm consists of 60 buildings and structures on an 857 ac property. From its inception, the farm utilized a sanitary production system. The construction and design of the buildings conform to the sterility regulations promoted by the dairy industry during the early-twentieth century. This dairy farm is an important example of a twentieth century dairy farm that supplied high-quality dairy products to the Naval Academy for over eight decades.

**History and Support**

Land Tenure History

The original 500-ac tract that encompasses the Dairy Farm property, known as "Howard's Adventure," was patented by Matthew Howard in 1681, and was acquired by Charles Hammond from John Howard in 1701. In 1719, Charles Hammond deeded the parcel to his two sons, Philip and Rezin; five years later, Rezin transferred a 100-ac portion of his interest in the property to Philip (Maryland State Archives, Anne Arundel County Tract Index). According to its National Register nomination, the Hammond Manor House, a 63 x 32 ft structure with 6-ft foundation walls and split ash joists, reportedly was constructed before 1730 (Geis 1963; Cheevers 1974:7-1). By 1750, the property was owned by Philip Hammond (Sr.), who is interred in the family cemetery.

During the eighteenth century, various members of the Hammond family continued to control and expand their holdings in central Anne Arundel County. Philip Hammond, Sr., apparently undertook the major development of the property, and probably constructed the manor house. At Philip, Sr.'s death in 1760, his extensive properties were divided among his wife, Rachel (Brice), and his sons Philip, Rezin, Matthias, and Denton Hammond (Cheevers 1974:8-1). Philip, Sr.'s heirs continued to deal in real estate; in 1773, for example, the family purchased a 200 ac parcel known as Green Spring (Maryland State Archives, Anne Arundel County Tract Index), a property that either adjoined or was included within the present Dairy Farm tract. Hammond property listings in the 1798 Direct Federal Census also verify that family members rented numerous properties to tenants.

The designation of "P" and "R" Hammond on Dennis Griffith's 1794 map of the area suggests that Philip, Sr.'s sons Philip and Rezin shared the "Howard's Adventure" property. The 1798 Direct Federal Census Particular List for the South and Severn Hundreds describes the buildings on the brothers' adjoining properties. The structures on Col. Rezin Hammond's home plantation included: one dwelling (32 x 21 ft), with an additional dwelling (22 x 16 ft) and another "old," "much decayed" dwelling (22 x 16 ft) adjoining these; three log "quarters", two hen houses (12 x 12 ft), a log milk house (12 x 12 ft), and a second milk house (13 x 13 ft) of stone. All buildings were single-story structures, and except the stone milk house, were of wood. Recent interpretations of land grants in the Gambrills/Millersville vicinity

suggest that Rezin Hammond's home plantation complex was located close to the present Cecil Valk homestead in Millersville, east of the Dairy Farm project area (Donna Ware, personal communication 1996).

The structures on Philip Hammond's property were far more modest. They included one single-story wooden dwelling house (56 x 32 ft), one kitchen (20 x 20 ft), and one old log storehouse (possibly described as "sorry") that measured 20 x 30 ft. This description of Philip Hammond's home plantation closely approximates the size of the house described by Geis (1963) and in the National Register nomination (Cheevers 1974). Conversations with Anne Arundel County's architectural historian and planner, Donna Ware (1996) confirm that, despite the major modifications added to the house during the nineteenth century, its underlying frame structure and its massive foundation walls appear to conform closely to the 1798 description. At Philip, Sr.'s death, the property apparently was inherited by his son, Charles (Webb-Peploe 1930).

Eleven members of the Hammond family, including all of those mentioned above, and perhaps as many as 35 additional unmarked burials, are interred in the cemetery located on the Dairy Farm property. Webb-Peploe (1930), who herself is interred in the cemetery, contended that the following groups of individuals also were buried in unmarked graves: Nathaniel, Hammentell, and Ruth Hammond, children of Major Charles Hammond and siblings of Philip Hammond, Sr.; Col. Charles and Rachel Johnson Hammond, Philip, Ann, Denton, Matthias, and Rezin Hammond, children of Philip Hammond, Sr.; Major Philip, Charles, Rezin, John, and Hannah Hammond, children of Col. Charles and Rachel Johnson Hammond; and 13 children of Major Philip Hammond, including Thomas Hammond. Genealogical sources (Webb-Peploe 1930; Gurney 1987:136) disagree on the relationships between members of the Hammond family, who had a penchant for utilizing the same names in each generation.

Except for the Hammond family cemetery itself, no eighteenth century structures are extant within the property boundaries of the Dairy Farm. The manor house burned in 1980; together with the remainder of the Hammond Plantation complex, it is now represented as an archeological site. The wall of the cemetery reportedly was "restored" by the Peggy Stewart chapter of the Daughters of the American Revolution during the 1940s (Thorsen 1993).

Cartographic and historic research suggests that, during the nineteenth century, the Hammond Plantation remained divided among the heirs of Philip Hammond. The Martenet (1860) map identifies three Hammond properties in the general area: G. W. Hammond's (heirs), Mrs. Juliana Hammond's, and Thomas Hammond's (heirs). The Thomas Hammond property incorporates the present Dairy Farm tract. In 1855, Thomas Hammond acquired this property from his mother and his siblings, Charles and Margaret Hammond, all of whom were joint heirs of John Hammond, presumably a son of Philip Hammond, Jr. The deed refers to the property as "Hammond's Green Spring Connection," and indicates that the property adjoins several other tracts, including "Basil Hall's Land," "Abington," "Wilson's Grove," "Brandy," and "Cordwell" (Anne Arundel County Deeds, Liber NHG 5:14).

Between 1870 and 1914, the history of the Dairy Farm property mirrored the general trends that characterized agriculture in Anne Arundel County. The number of farms in the county increased, and their average size decreased. Hopkins' 1878 *Map of Anne Arundel County* depicts four residents within the main Dairy Farm tract: Jonathan Warfield, C. Sutton, G. Woodward, and G. Kurby; no residents directly identifiable as members of the Hammond family resided on the property. When the Naval Academy Dairy Farm was established in 1913, eight properties comprised the dairy farm tract (*see* next section).

Establishment of the U.S. Naval Academy Dairy Farm

The concept of a U.S. Naval Academy Dairy was conceived in 1901 by Samuel Bryan, who was serving as Paymaster, Store Keeper, and Commissary Officer of Midshipmen at the Academy during that time. Bryan became concerned about the high rate of digestive disorders and illnesses among the Academy's midshipmen. His inspection of conditions under which the Academy's private contractors produced the dairy products used at the institution and documented the lack of sanitation at the farms of the suppliers. An epidemic of typhoid fever that swept the corps of midshipmen in 1910 convinced the Navy's Board of Medical Examiners to recommend the establishment of an independent dairy farm to supply the Academy's needs. In 1910, a small dairy farm was operated on a 180-ac parcel at Greenbury Point (Sweetman 1979:163). However, this small operation failed to meet the needs of the Academy, and in 1913, the Navy began to search for one or more larger tracts in the Annapolis vicinity. Official correspondence files of the Midshipmen's Supply Department (U.S. Naval Academy [USNA] Archives, RG 405 1913:*passim*) contain numerous offers of properties, all of which stressed ready access to transportation and proximity to the Naval Academy itself.

Most of the present tract was purchased in 1913. The choice of location was dictated not only by the adequate size of the assembled tract, but also by its location close to the Washington, Baltimore, and Annapolis (WB&A) Railroad. The railroad provided swift transportation of dairy products directly to Annapolis and also supplied electric power to the farm. To create the tract, the Navy purchased eight contiguous parcels from Azariah F. Oursler (305.5 ac); Henry Woodward (155 ac); William N. Woodward (134.5 ac); William R. Pueschel (120 ac); Adam Kaufman (31 ac); William H. Joyce (13.7 ac); Mabel E. Fleming (4.7 ac); and Arnold Osbelt and Archivald Crary (1 ac). The property was expanded in 1916 (Lizzie Woodward: 84.6 ac) and again in 1929 (William F. Butler: 5.5 ac) (U.S. Navy, Naval Facilities Engineering Command [NAVFAC] 1991). Each parcel was equipped with existing structures, including dwellings, barns, and ancillary farm buildings (Lobos 1995:Chapter III; USNA Archives, RG 405). During the 1920s and 1930s, another type of structure was erected on the William Joyce tract. The Gambrills Athletic Club "improved" this parcel for use as a ballfield by purchasing a used grandstand from the Bowie Auto Club and rebuilding it on the 5 ac parcel (USNA Archives, RG 405).

Construction of the buildings at the facility began in 1914, utilizing plans and specifications developed by the Bureau of Animal Husbandry of the U.S. Department of Agriculture (Downey 1913). The original complex included a power plant, a milk house, five cow barns, a bull barn, a maternity/hospital barn, a horse barn, five silos, a pump house, artesian well houses, 18 cottages for the superintendent, the herdsman, and the married employees, and a dormitory and mess hall for unmarried employees. When the Naval Academy Dairy Farm was established, the parcel adjacent to the railroad right-of-way contained three bungalows; these buildings may have been moved onto the main parcel to serve as housing for dairy farm employees (Lobos 1995:Chapter III).

The plans and specifications for the facilities adopted the approved sanitation guidelines for that time. For example, the cow barns were constructed of concrete with an interior plaster finish, and concrete floors (Lobos 1995:Chapter IV). These materials were permanent and durable. The smooth finish surfaces allowed for easy cleaning, and deterred dust and dirt collection. Fresh air and sunlight, which were thought to improve the dairy herd's health, were provided by generous expanses of windows throughout the buildings (Lobos 1995:Chapter IV). The majority of the complex was sited on a high knoll on the north side of the property. This location facilitated air circulation to the entire complex, as well as provided access to the WB&A railroad line.

The farm was a large, integrated dairy operation. Automobile mechanics, engineers, carpenters, a blacksmith, a launderer, a gardener, and painters, in addition to dairy farmers, were employed to

maintain the buildings, farm equipment, and transportation vehicles (Lobos 1995:Chapter IV). The farm received national recognition for its innovative design, and sanitary and scientific operation of the facilities. Officials from the dairy and sanitation industries, as well as military officials, visited the dairy farm to study its operation. Small dairy operations established by the Britain Army in India were modeled after the Academy's Dairy Farm in Gambrills. The USNA Dairy Farm is the only facility of its kind associated with a military academy (Lobos 1995:Chapters II, V). The operation of the Dairy Farm was not without controversy, however. During the 1930's, the farm was viewed increasingly as an anomaly that a Depression-era government could not afford to support. For example, the headline of one newspaper article of the period trumpeted, "Naval Academy Dairy Costs U.S. Citizens $145,000 a Year; Holstein Herd Treated Like Petted Infants" (Henning 1932).

Modifications to the dairy farm property have been minimal since its establishment. Two property acquisitions during the 1930s added 1.13 ac to the area of the facility (NAVFAC 1991). The approach of World War II and the demands of a larger midshipman corps strained the ability of the farm to provide an adequate supply of dairy products. The farm's superintendent requested permission to clear additional land and expand production. Following World War II, a number of dairy buildings and storage facilities were constructed. Additional manpower was required to assist in the increased production. Assistance initially was sought from the Civilian Conservation Corps (CCC). However, the CCC declined to provide labor because the Academy had no space to house the workers (the Academy suggested housing them at Fort Meade) and because most CCC units had been tapped to construct temporary facilities at Army posts (USNA Archives, RG 405 1940). The labor shortage was solved by using prisoners-of-war at the facility (Stevenson 1946); whether the POWs were housed at the farm or at Fort Meade has not been determined. The shortage of on-site accommodations was resolved partially through the conversion of the Hammond manor house to housing for dairy farm employees (Lobos 1995:Chapter VIII). The manor house burned in 1980 due to arson (Cheevers 1974).

Agricultural Context - Dairy Industry

The 1860 agricultural census for the Second District of Anne Arundel County described the properties of Thomas and Charles Hammond. The majority of land on both properties was under active cultivation. Livestock on both properties included horses, cattle, and swine, and both farms produced wheat, corn, and oats. However, the most important commodity produced on both Hammond properties was tobacco: 8,000 lb for Thomas, 10,000 lb for Charles. The amount of tobacco produced on these farms is surprising, given that the general trend in agriculture during this period was away from tobacco and towards more diversified crops. During the nineteenth century, tobacco production, the mainstay agricultural activity of the region since the seventeenth century, waned in favor of such other crops as cereals and fresh produce. These crops were less harsh to the soils, and provided a more stable income.

The Hammonds' success in producing tobacco appeared to be a exception for Gambrills area farmers. By the late-nineteenth century, the type of farming practiced on the future site of the Academy's Dairy Farm followed the general trend in Anne Arundel County agriculture of diversifying output. George Woodward's 169 ac farm was valued at $3000. His livestock holdings consisted of four horses, one cow and calf, five pigs, and 24 fowl. During 1879, Woodward produced $500 worth of commodities, including 50 lb of butter, corn, apples, and Irish potatoes (1880 Agricultural Census).

By the early-twentieth century, dairying joined cereal as a profitable agricultural pursuit for the county's farmers. Prior to the Civil War, the only dairy product that could be transported over long distances safely was cheese (Campbell and Marshall 1975:28). Dairy products spoiled quickly and had

to be consumed shortly after production. Transportation improvements provided farmers increasingly fast and reliable access to the urban markets of Washington, D.C. and Baltimore. The hamlet of Gambrills, which developed along the WB&A Railroad, was typical of the small communities that developed in rural areas of the county, as transportation access provided incentives for growth and diversification.

Dairy production and consumption also increased beginning during the late 1880s due to post Civil War developments in refrigeration technologies and the application of industrial production methods to agriculture. However, a medical breakthrough chiefly was responsible for the significant increase in dairy consumption during this period. During the 1850s-1870s, Louis Pasteur proved the existence of bacteria and their role in disease. Pasteur also discovered that bacteria bred best in unsanitary conditions. Though the general populace at first derided Pasteur's discoveries as fanciful, by the late 1870s Pasteur's germ theories were accepted as fact (Garland 1949:163-175).

Clean milk societies, dedicated to the promotion of sanitary conditions in the dairying industry, began to arise during the 1880s. In 1891, the Dairy Division of the Department of Agriculture was organized to disseminate information about "modern" dairy practices, and the prevention of animal disease transmission. As the dairy industry evolved, this division gradually acquired experimental stations to conduct scientific studies concerning the properties of milk. The Dairy Division also gained regulatory power (Pirtle 1926:142-143).

It wasn't until 1892 that milk was proven to be a natural environment for bacteria (McNutt 1917:67). The French, upon the recommendation of Louis Pasteur, had been killing bacteria in wine by applying heat since the 1860s. Some American doctors and farmers adopted the pasteurization process, and in 1895 machinery to consistently pasteurize milk was perfected. The American public accepted slowly the need to pasteurize milk. Also enabling expansion of the dairy industry was the perfection in 1895 of the first milking machine (Campbell and Marshall 1975:29).

The proponents of pasteurization fought to legally mandate dairy pasteurization. In New York, Mr. Nathan Strauss established centers that distributed pasteurized milk free of charge to undernourished children under five years of age. His efforts were credited with an almost 40 per cent drop in the mortality rate for these children between 1893 and 1906. In 1907, the United States Department of Health mandated milk pasteurization and established national pasteurization standards: milk was to be heated to 145 degrees for 30 minutes, and then maintained in a refrigerated environment thereafter (Pirtle 1926:87, 91, 130). Prior to the establishment of the Naval Academy Dairy Farm, digestive disorders from contaminated milk affected a considerable number of midshipmen. Pasteurized milk supplied by the Academy Dairy Farm resulted in an 81 per cent decrease in sick days during the first year of the farm's operation (Lobos 1995:Chapter I).

Mandatory pasteurization of milk guaranteed quality and spurred an increase in the consumption of dairy products. During the same period, it was discovered that, although keeping milk cool retarded bacterial activity, constant refrigeration was unnecessary until after bacteria had been killed by the pasteurization process. Processing plants specializing in the production of sanitary milk products arose, relieving the farmer of the regulatory burden imposed by the sanitary production laws. These dairy plants invested in the machinery to rapidly process large quantities of milk (Pirtle 1926:130-131).

Agricultural Context - Dairy Farms

Twentieth century agricultural buildings reflect increased agricultural specialization as well as the

importance of machinery, sanitation, and government regulation in food production and processing. Sanitation was the primary consideration in the construction of the dairy (cow) barn. Impermeable, permanent materials were used for construction because they were thought to be less conducive to bacterial growth, and because they were easier to clean. Emphasis was placed upon minimizing the number of shelves and sharp corners, where dirt and dust could collect. Instead, rounded plane intersections were recommended to facilitate cleaning (Harvey and Hill 1936:115-128). The different functions of the cow barn determined their physical characteristics beyond these basic construction specifications. The Academy's dairy buildings utilized concrete construction and smooth finished surfaces to prevent unsanitary interior and exterior conditions.

The function of the USNA cow barn was to house dairy cows. In addition the cows also were fed and milked in the barn. Windows and doors were incorporated liberally on all elevations of the barn for cross ventilation and light. Sunlight was thought to kill bacteria (Harvey and Hill 1936:108-115). Buildings 28-32, the five original cow barns of the plant, exhibit nine windows on the long elevations for ventilation and sunlight.

The barn plan also emphasized sanitation. A central aisle extended the length of the building. To either side of the aisle were stalls. The building floor sloped gently towards the central aisle, allowing the farmer to clean cattle effluent from the stalls with high pressure hoses. Within the central aisle, effluent could then be shoveled into carts, and the non-shoveled residue hosed out of the building (Harvey and Hill 1936:134-138). The plan of the cow barns (Buildings 28-32) incorporates 25 stalls on either side of a center aisle.

After pasteurization, two functions occurred: milk storage (refrigeration) and equipment washing. In a milk room, milk was weighed (milk was sold by weight, not by volume) and poured into a cooling tub until delivered to the local dairy for processing. The concrete floor of the milk room sloped gently to a drain. It was recommended that the milk room floor and walls be hosed down twice daily to prevent spilled milk from accumulating and attracting flies (Harvey and Hill 1936:150-157).

Within a washing room, the various utensils of the milking process were cleaned. Galvanized iron washtubs were recommended; one with hot water for cleansing, and one with cold water for rinsing. Also recommended was a copper steam delivery system to ensure utensil sterilization. After washing, the utensils were to be placed upon steel drying racks. Again, the emphasis was placed upon sanitation in the design and construction materials. All elements of the building were designed to facilitate cleanliness within the milk production system (Harvey and Hill 1936:152, 156-157).

Analysis

The U.S. Naval Academy Dairy Farm was evaluated under both Criteria A and C of the National Register of Historic Places. The complex was assessed as a district; as an example representative of a twentieth century model dairy farm for its association with an important local industry, and for its role in the history of the U.S. Naval Academy, a significant military educational institution.

The U.S. Naval Academy Dairy Farm is a large-scale, self-contained dairy farm. It is the only complex of its type constructed specifically to support a military academy. It supplied high-quality dairy products to the midshipmen for most of the twentieth century. The design and construction of the dairy buildings adhere to the standards of health and sanitation promoted by the dairy industry during the early-twentieth century. The primary dairy buildings, such as the cow barns (Buildings 28-32), the chemical

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laboratory (26), and the pasteurization building (25), exemplify designs for sanitary farms through their concrete construction, and the generous amount of windows incorporated for cross ventilation and sunlight. The division of the complex functional areas including and employee residential area and the core dairy buildings, illustrates a carefully planned and efficient farm layout. The structures are in fair to good condition, with most receiving a few impermanent modifications. The Naval Academy Dairy Farm possesses the qualifications of significance and integrity to meet Criteria A and C of the National Register of Historic Places.

The U.S. Naval Academy Dairy Farm was inventoried as part of a 1996 update to the U.S. Naval Academy Historic Preservation Plan. In 1980, the National Architectural and Engineering Record conducted a survey and building inventory of 278 buildings at the Naval Academy. These buildings were categorized according to their relative architectural and historic importance utilizing Navy standards for treatment of historic properties. The individual buildings and structures within the Academy's dairy farm, originally categorized as possessing no historical importance, were reevaluated for those qualities of significance and integrity identified in the *National Register of Historic Places Criteria for Evaluation* (36 CFR 60). Archival and field investigations revealed that the Naval Academy Dairy Farm possesses the qualities of significance and integrity for listing in the National Register of Historic Places under Criteria A and C.

AA-2177

United States Naval Academy, Dairy Farm
Anne Arundel County

**Maryland Comprehensive Historic Preservation Plan Data**

Geographic Organization:

Western Shore

Chronological/Developmental Period(s):

Industrial/Urban Dominance A.D. 1870-1930

Modern Period A.D. 1930-present

Historic Period Theme(s):

Agriculture

Architecture

Resource Type:

Category: Buildings

Historic Environment: Rural

Historic Function and Use: Dairy Farm

Known Design Source: Bureau of Animal Husbandry of the U.S. Department of Agriculture

# 9. Major Bibliographical References

Survey No. AA-2177

SEE ATTACHED SHEETS

# 10. Geographical Data

**Acreage of nominated property** 857

**Quadrangle name** ODENTON **Quadrangle scale** 1:24,000

**UTM References** do NOT complete UTM references

| | Zone | Easting | Northing | | Zone | Easting | Northing |
|---|---|---|---|---|---|---|---|
| A | | | | B | | | |
| C | | | | D | | | |
| E | | | | F | | | |
| G | | | | H | | | |

**Verbal boundary description and justification**

SEE ATTACHED SHEET

**List all states and counties for properties overlapping state or county boundaries**

| state | code | county | code |
|---|---|---|---|
| state | code | county | code |

# 11. Form Prepared By

**name/title** LORI O'DONNELL, LEX CAMPBELL, MARTHA WILLIAMS

**organization** R. CHRISTOPHER GOODWIN & ASSOC., INC. **date** OCTOBER 30, 1996

**street & number** 241 EAST FOURTH STREET, SUITE 100 **telephone** 301-694-0428

**city or town** FREDERICK **state** MARYLAND

The Maryland Historic Sites Inventory was officially created by an Act of the Maryland Legislature to be found in the Annotated Code of Maryland, Article 41, Section 181 KA, 1974 supplement.

The survey and inventory are being prepared for information and record purposes only and do not constitute any infringement of individual property rights.

return to: Maryland Historical Trust
Shaw House
21 State Circle
Annapolis, Maryland 21401
(301) 269-2438

MARYLAND HISTORICAL TRUST
DHCP/DHCD
100 COMMUNITY PLACE
CROWNSVILLE, MD 21032-2023
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PS-2746

## MAJOR BIBLIOGRAPHIC RESOURCES

Anne Arundel County, Maryland
1996 Vertical File: Hammond Manor House and Dairy (AA-171, 172). On file. Division of Planning and Zoning, Annapolis.

Campbell, John R. and Robert T. Marshall
1975 *The Science of Providing Milk for Man.* McGraw-Hill Book Co., New York.

Cheevers, John
1974 "National Register of Historic Places Registration Form, Hammond Manor House, Gambrills, Maryland" Maryland Historical Trust, Crownsville, Maryland.

Downey, George E.
1913 Memorandum to the Paymaster General. Record Group 405: Records of the Superintendent, Midshipmen's Stores and Service Division. United States Naval Academy Archives, Annapolis.

Epperson, Terence
1980 *Addendum Report on the Archeological Reconnaissance of the Md Route 3 Transportation Corridor From US Route 50/301 to Md Route 32, Anne Arundel and Prince George's Counties, Maryland.* Submitted to the Maryland State Highway Administration. Maryland Geological Survey File Report 83.

Garland, Joseph, M.D.
1949 *The Story of Medicine.* Houghton Mifflin Company, Boston.

Geis, Robert Lee
1963 The Hammond Manor House of Gambrills, Anne Arundel County, Maryland. Typescript. Memorandum to United States Department of Interior. On File. Anne Arundel County Division of Planning and Zoning, Annapolis.

Gurney, John Thomas (ed.)
1987 *Cemetery Inscriptions of Anne Arundel County, MD.* Volume II. Anne Arundel Genealogical Society. Bookcrafters Inc., Chelsea, Michigan.

Harvey, William Clunie, M.D., D.P.H., M.R. San. I., and Harry Hill, M.R. San. I., A.M.I.S.E., M.S.I.A.
1936 *Milk: Production and Control.* H. K. Lewis & Co. Ltd., London.

Henning, Arthur Sears
1932 Naval Academy Dairy Costs U.S. $145,000 a Year. *Chicago Tribune*, August 2. Record Group 405: Records of the Superintendent. United States Naval Academy Archives, Annapolis.

Kavanagh, Maureen
1981 *Archeological Reconnaissance of Md Rte 32 from the Howard County Line to Annapolis Junction, Anne Arundel County, Maryland.* Submitted to the Maryland State Highway Administration. Maryland Geological Survey File Report 167.

Lobos, Donna M.
1995 The United States Naval Academy Dairy Farm, unpublished manuscript. On file at the Maryland Historical Trust, Crownsville, Maryland.

McNutt, J. Scott
1917 *The Modern Milk Problem.* Macmillan Co., New York.

Pirtle, Thomas R.
1926 *History of the Dairy Industry.* Mojonnier Brothers Co., Chicago.

Stevenson, C. W.
1946 Memorandum to Officer in Charge, Midshipmen's Store & U. S. Naval Academy Dairy Farm. Record Group 405: Records of the Superintendent. United States Naval Academy Archives, Annapolis.

Sweetman, Jack
1979 *The U.S. Naval Academy: An Illustrated History.* Naval Institute Press, Annapolis.

Thorsen, Ellen
1993 Correspondence to Donna Ware regarding the Historical Survey of Anne Arundel County. On file at the office of Donna Ware, Anne Arundel County Office of Planning and Zoning, Annapolis.

U.S. Naval Academy Archives
1913-1946 General Correspondence File, Office of the Commandant, Midshipmen's Supply Department. Record Group 405: Records of the Superintendent.

U.S. Navy, Naval Facilities Engineering Command
1991 Property Acquisition Map: United States Naval Academy Dairy Farm. On file, Public Works Division, United States Naval Academy, Annapolis.

Webb, Dennis
1974 Notebooks on Anne Arundel County Archeology. On file. Archeological Repository, Spring Grove State Hospital, Catonsville.

Webb-Peploe, Laura Hammond
1930 The Colonial Hammond Cemetery. Text of Speech delivered to Peggy Stewart Chapter, Daughters of the American Revolution. On file. Division of Planning and Zoning, Anne Arundel County, Maryland.

**Verbal boundary description and justification**

The survey and historic district boundary includes the entire Dairy Farm property defined by the USNA, Dairy Farm real property records (1996).

## Table 1: Architectural Resources Located at the USNA, Dairy Farm

| FACILITY NUMBER | FACILITY NAME | DATE OF CONST. | ORIGINAL USE | CURRENT USE | FACILITY TYPE | USER | NATONAL REGISTER STATUS |
|---|---|---|---|---|---|---|---|
| 002DF | Fire Station | 1915 | Fire Station | Fire Station | Bldg | USNA | NR District/ Contributing |
| 025DF | Dairy Plant | 1915 | Admin./Pasteurization (1915) | Dairy Plant | Bldg | USNA | NR District/ Contributing |
| 026DF | Dairy Plant | 1918 | Chemical Laboratory | Dairy Plant | Bldg | USNA | NR District/ Contributing |
| 028DF | Dairy Plant | 1915 | Barn | Dairy Plant | Bldg | USNA | NR District/ Contributing |
| 029DF | Dairy Plant | 1915 | Barn | Dairy Plant | Bldg | USNA | NR District/ Contributing |
| 030DF | Dairy Plant | 1915 | Barn | Dairy Plant | Bldg | USNA | NR District/ Contributing |
| 031DF | Dairy Plant | 1915 | Barn | Dairy Plant | Bldg | USNA | NR District/ Contributing |
| 032DF | Dairy Plant | 1916 | Barn | Dairy Plant | Bldg | USNA | NR District/ Contributing |
| 038DF | Water Tank | 1916 | Water Tank | Water tank | Bldg | USNA | NR District/ Contributing |
| 043DF | Dairy Plant | 1941 | Grain Elevator | Dairy Plant | Bldg | USNA | NR District/ Contributing |
| 101ADF | Rental Housing | 1939 | Residence | Rental Housing | Bldg | USNA | NR District/ Contributing |
| 101DF | Rental Housing | 1939 | Residence | Rental Housihg | Bldg | USNA | NR District/ Contributing |
| 103DF | Rental Housing | 1917 | Residence | Rental Housing | Bldg | USNA | NR District/ Contributing |
| 104DF | Rental Housing | 1914 | Residence | Rental Housing | Bldg | USNA | NR District/ Contributing |
| 105DF | Rental Housing | 1917 | Residence | Rental Housing | Bldg | USNA | NR District/ Contributing |
| 106DF | Rental Housing | 1914 | Residence | Rental Housing | Bldg | USNA | NR District/ Contributing |
| 107DF | Rental Housing | 1917 | Residence | Rental Housing | Bldg | USNA | NR District/ Contributing |
| 108DF | Rental Housing | 1918 | Residence | Rental Housing | Bldg | USNA | NR District/ Contributing |
| 109DF | Rental Housing | 1914 | Residence | Rental Housing | Bldg | USNA | NR District/ Contributing |
| 128DF | Rental Housing | 1937 | Residence | Rental Housing | Bldg | USNA | NR District/ Contributing |
| 143DF | Detached Garage | 1937 | Garage | Detached Garage | Bldg | USNA | NR District/ Contributing |
| 146DF | Detached Garage | 1917 | Garage | Detached Garage | Bldg | USNA | NR District/ Contributing |
| 147DF | Detached Garage | 1917 | Garage | Detached Garage | Bldg | USNA | NR District/ Contributing |
| 148DF | Detached Garage | 1917 | Garage | Detached Garage | Bldg | USNA | NR District/ Contributing |
| 149DF | Detached Garage | 1917 | Garage | Detached Garage | Bldg | USNA | NR District/ Contributing |
| 150DF | Detached Garage | 1918 | Garage | Detached Garage | Bldg | USNA | NR District/ Contributing |
| 151DF | Detached Garage | 1914 | Garage | Detached Garage | Bldg | USNA | NR District/ Contributing |
| 152DF | Detached Garage | 1918 | Garage | Detached Garage | Bldg | USNA | NR District/ Contributing |
| 155DF | Dairy Plant | 1941 | Grain Elevator | Dairy Plant | Bldg | USNA | NR District/ Contributing |
| 157DF | Dairy Plant | 1941 | Grain Elevator | Dairy Plant | Bldg | USNA | NR District/ Contributing |
| 125DF | Pump house | 1929 | Pump house | Pump house | Bldg | USNA | NR District/ Non-Contributing |
| 130DF | Dairy Plant | 1942 | Barn (n.d.) | Dairy Plant | Bldg | USNA | NR District/ Non-Contributing |
| 133DF | Detached Garage | 1932 | Garage | Detached Garage | Bldg | USNA | NR District/ Non-Contributing |
| 136DF | PW Shop/Dairy Plant | 1947 | Storage | PW Shop/Dairy Plant | Bldg | USNA | NR District/ Non-Contributing |
| 137DF | Dairy Plant | 1947 | Storage | Dairy Plant | Bldg | USNA | NR District/ Non-Contributing |
| 138DF | Dairy Plant | 1947 | Storage | Dairy Plant | Bldg | USNA | NR District/ Non-Contributing |

## Table 1: Architectural Resources Located at the USNA, Dairy Farm

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 139DF | Dairy Plant | 1947 | Storage | Dairy Plant | Bldg | USNA | NR District/ Non-Contributing |
| 140DF | Dairy Plant | 1947 | Storage | Dairy Plant | Bldg | USNA | NR District/ Non-Contributing |
| 011DF | Dairy Plant | 1970 | Vehicular Storage | Dairy Plant | Bldg | USNA | NR District/ Non-Contributing* |
| 156DF | Dairy Plant | 1956 | Grain Elevator | Dairy Plant | Bldg | USNA | NR District/ Non-Contributing* |
| 164DF | Dairy Plant | 1956 | Barn | Dairy Plant | Bldg | USNA | NR District/ Non-Contributing* |
| 166DF | Rental Housing | 1957 | Residence | Rental Housing | Bldg | USNA | NR District/ Non-Contributing* |
| 167DF | Dairy Plant | 1957 | Barn | Dairy Plant | Bldg | USNA | NR District/ Non-Contributing* |
| 168DF | Rental Housing | 1958 | Residence | Rental Housing | Bldg | USNA | NR District/ Non-Contributing* |
| 169DF | Detached Garage | 1957 | Garage | Detached Garage | Bldg | USNA | NR District/ Non-Contributing* |
| 170DF | Detached Garage | 1958 | Garage | Detached Garage | Bldg | USNA | NR District/ Non-Contributing* |
| 171DF | Detached Garage | 1958 | Garage | Detached Garage | Bldg | USNA | NR District/ Non-Contributing* |
| 172DF | Dairy Plant | 1963 | | Dairy Plant | Bldg | USNA | NR District/ Non-Contributing* |
| 173DF | Dairy Plant | 1962 | Animal Shelter | Dairy Plant | Bldg | USNA | NR District/ Non-Contributing* |
| 175DF | Prod. Storage | 1965 | Silo | Prod. Storage | Bldg | USNA | NR District/ Non-Contributing* |
| 176DF | Prod. Storage | 1965 | Covered Troughs | Prod. Storage | Bldg | USNA | NR District/ Non-Contributing* |
| 177DF | Prod. Storage | 1966 | Covered Troughs | Prod. Storage | Bldg | USNA | NR District/ Non-Contributing* |
| 178DF | Prod. Storage | 1966 | Covered Troughs | Prod. Storage | Bldg | USNA | NR District/ Non-Contributing* |
| 179DF | Prod. Storage | 1966 | Covered Troughs | Prod. Storage | Bldg | USNA | NR District/ Non-Contributing* |
| 180DF | Prod. Storage | 1966 | Covered Troughs | Prod. Storage | Bldg | USNA | NR District/ Non-Contributing* |
| 182DF | Prod. Storage | 1968 | Covered Troughs | Prod. Storage | Bldg | USNA | NR District/ Non-Contributing* |
| 183DF | Prod. Storage | 1968 | Covered Troughs | Prod. Storage | Bldg | USNA | NR District/ Non-Contributing* |
| 141DF | Rental Housing | 1953 | Residence | Rental Housing | Bldg | USNA | Unevaluated |
| 142DF | PW Shop | 1951 | | PW Shop | Bldg | USNA | Unevaluated |
| 158DF | HazFlam. Storehouse | 1948 | | HazFlam. Storehouse | Bldg | USNA | Unevaluated |
| 165DF | Dairy Plant | 1957 | | Dairy Plant | Bldg | USNA | Unevaluated |
| 181DF | Sewage Pumping Sta. | 1970 | | Sewage Pumping Sta. | Bldg | USNA | Unevaluated |

* Resources found to be of no historical value in the 1980 survey, but not surveyed in this investigation.

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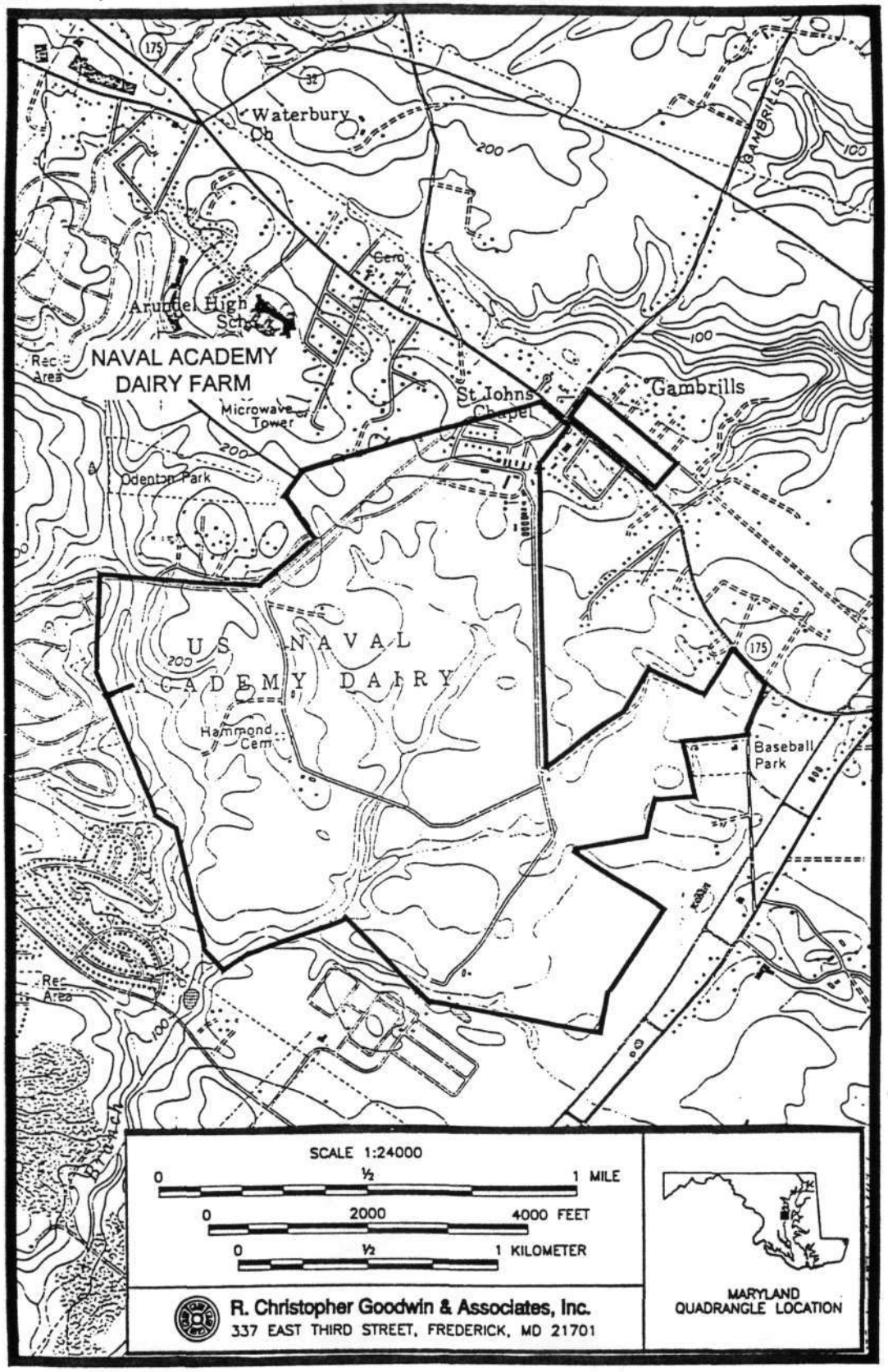
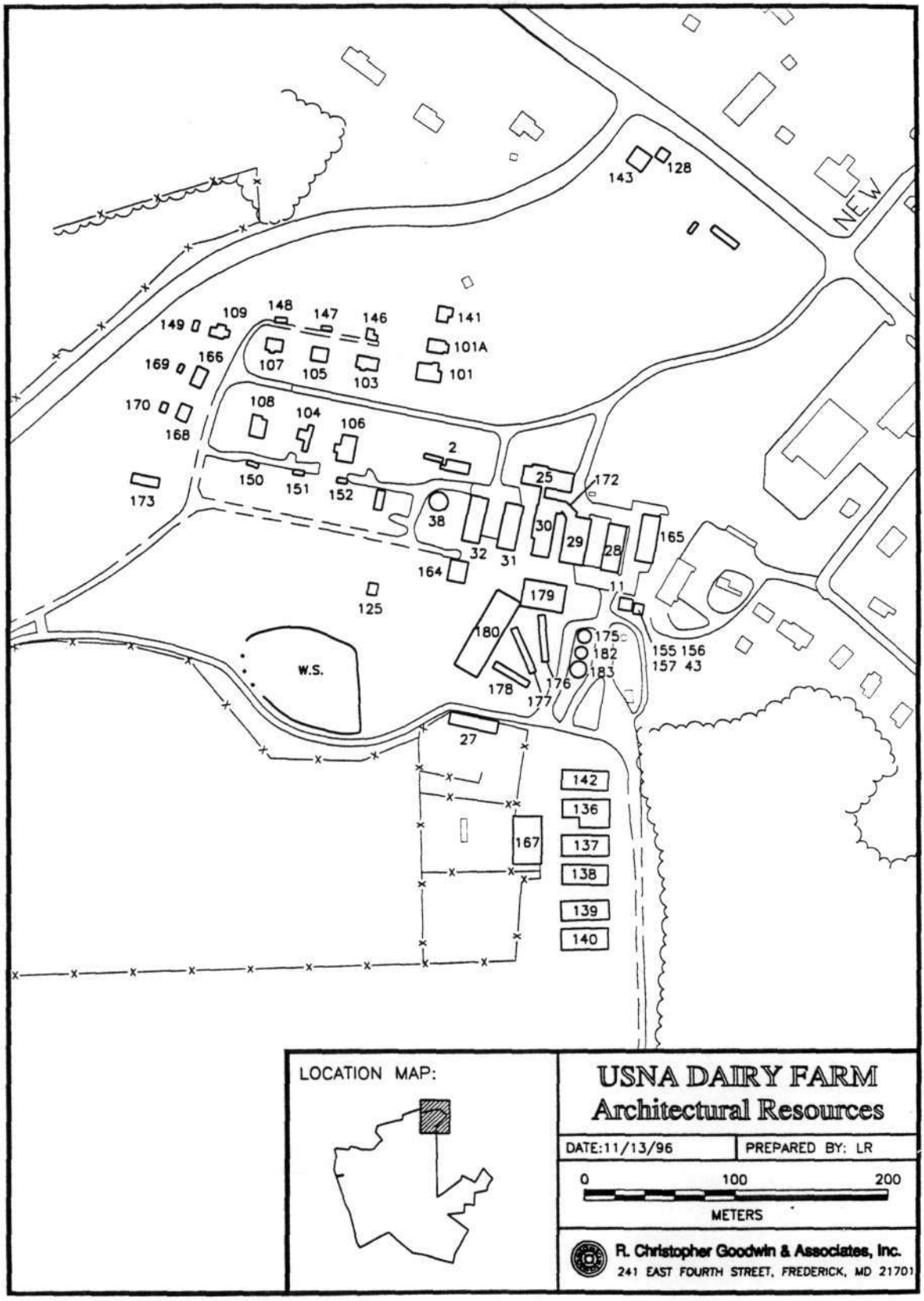
U.S. Naval Academy, Dairy Farm
Anne Arundel County
Locational Map: USGS Odenton Quadrangle Map



AA- 2177
U.S. Naval Academy, Dairy Farm
Anne Arundel County
Resource Sketch Map



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United States Naval Academy, Dairy Farm
Anne Arundel County

Photographer: Lex F. Campbell
R. Christopher Goodwin & Associates, Inc.

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United States Naval Academy, Dairy Farm
Anne Arundel County

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USNA, DAIRY FARM
ANNE ARUNDEL
L. CAMPBELL
SEPT. 1996
MD SHPO
SOUTH (FROM ROUTE 175), CONTEXT

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USNA, DAIRY FARM
ANNE ARUNDEL
L. CAMPBELL
SEPT. 1996
MD SHPO
EAST, DAIRY BARNS, CONTEXT

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USNA DAIRY FARM
ANNE ARUNDEL
L. CAMPBELL
SEPT. 1996
MD SHPO
WEST - BARNS 29-32 STD 03:00 NNNNN 09AU 030

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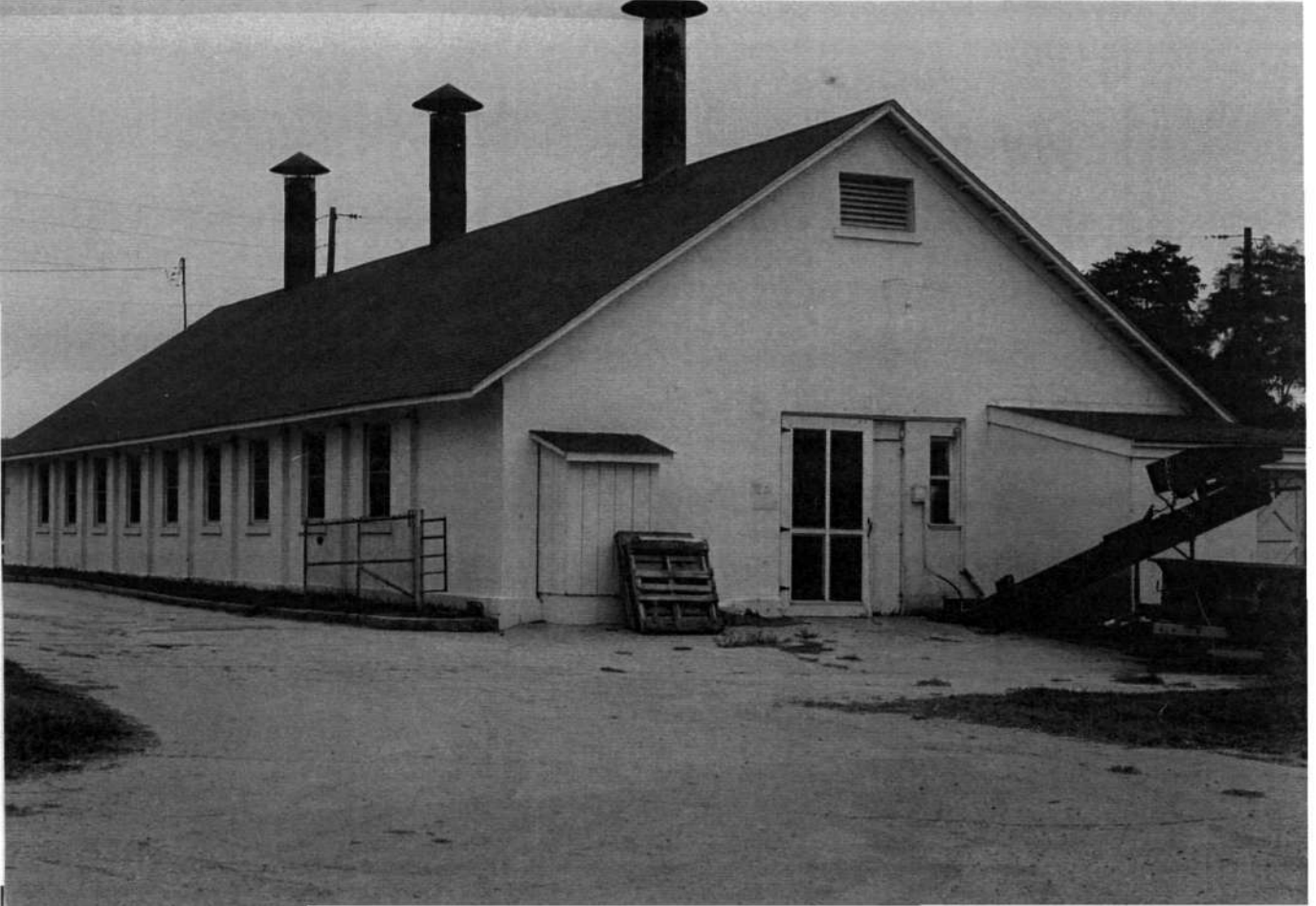

AA-2177

USNA DAIRY FARM
ANNE ARUNDEL
L. CAMPBELL
SEPT. 1996
MD SHPO.
NORTH - BUILDING 28, FRONT + SIDE

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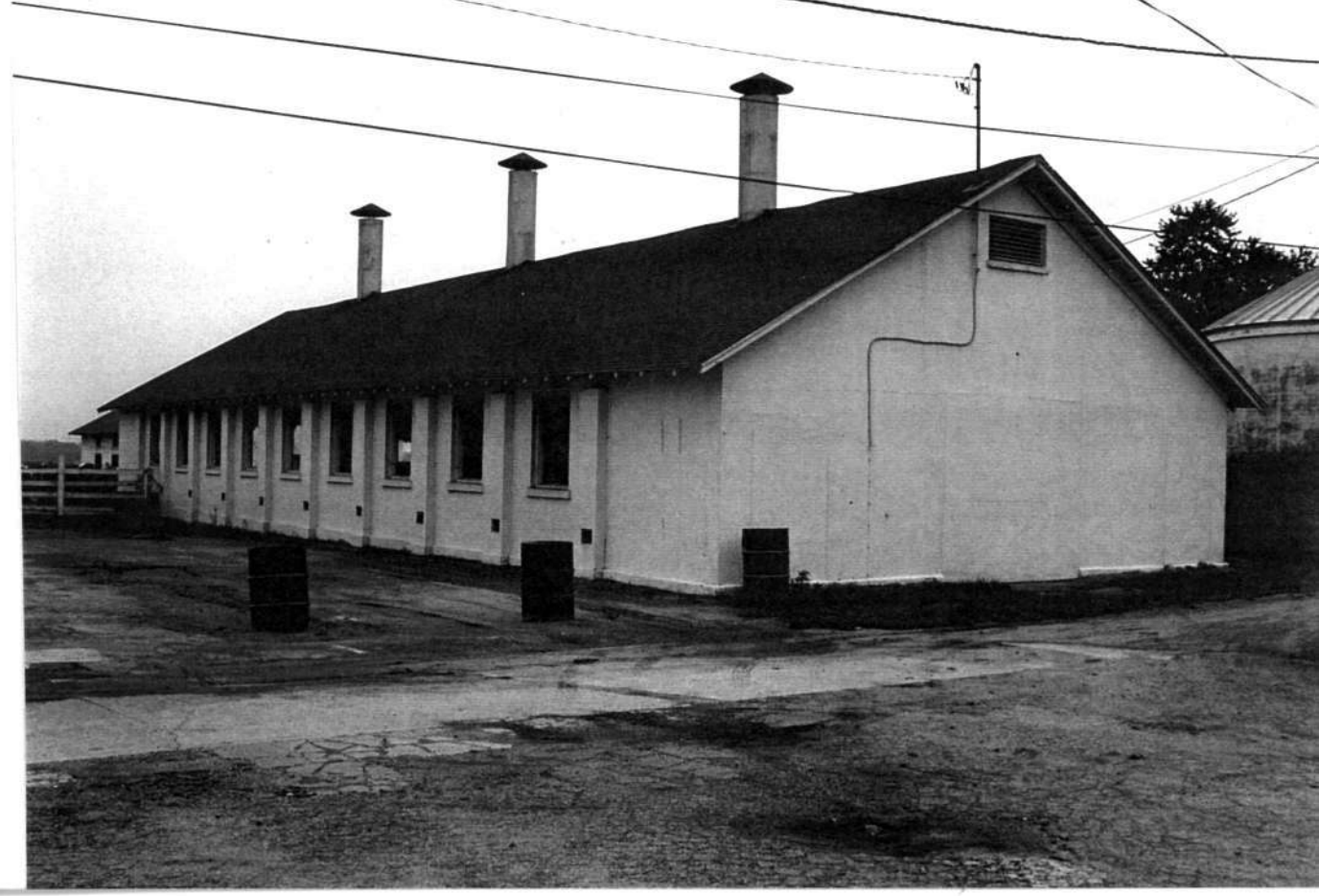

AA-2177
USNA DAIRY FARM
ANNE ARUNDEL
L. CAMPBELL
SEPT. 1996
MD SHPO
SOUTH, BUILDING 32, REAR + SIDE ELEVATI

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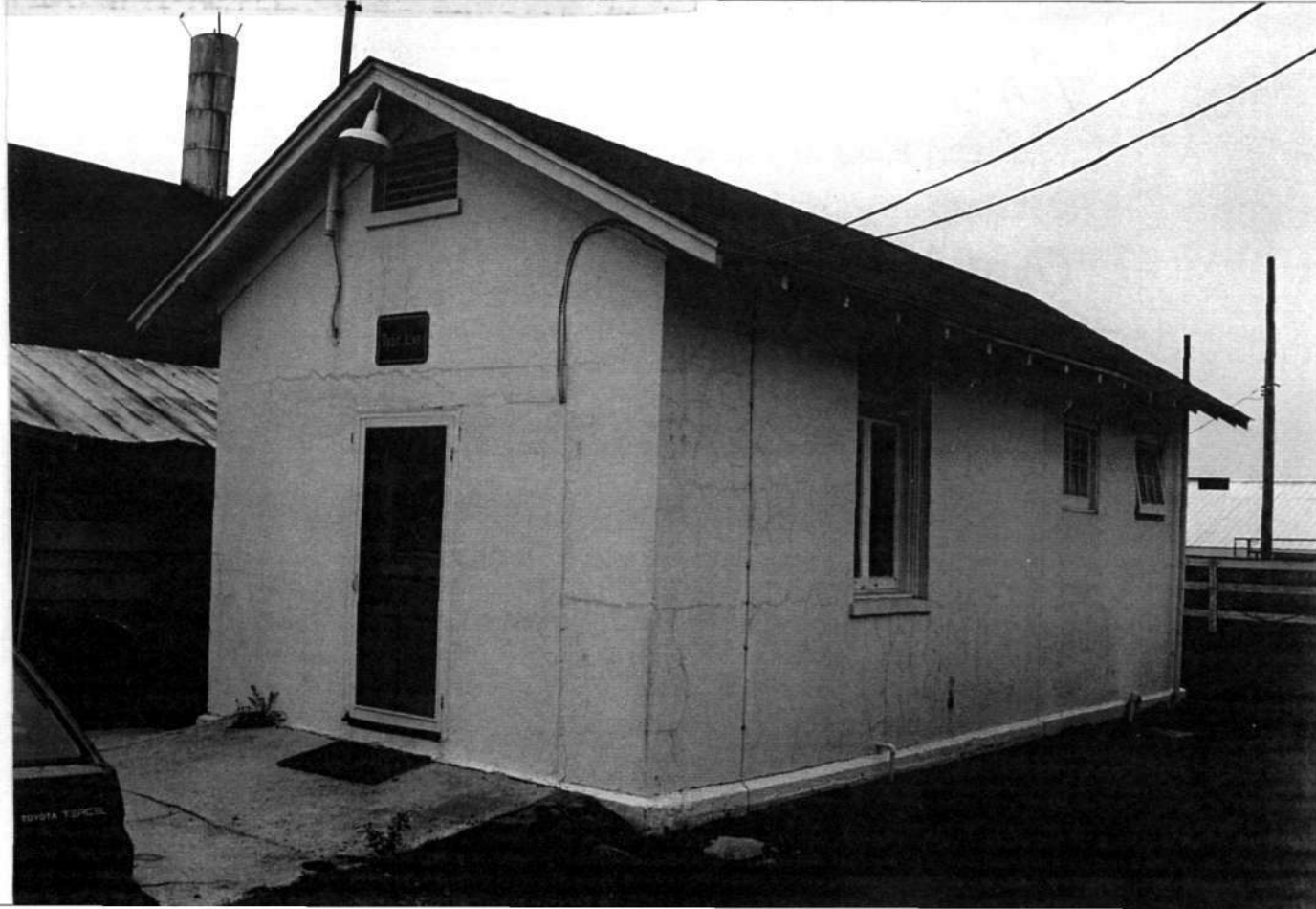

AA-2177
USNA DAIRY FARM
ANNE ARUNDEL
L. CAMPBELL
SEPT. 1996
MD SHPO
SOUTH, BUILDING 26, FRONT

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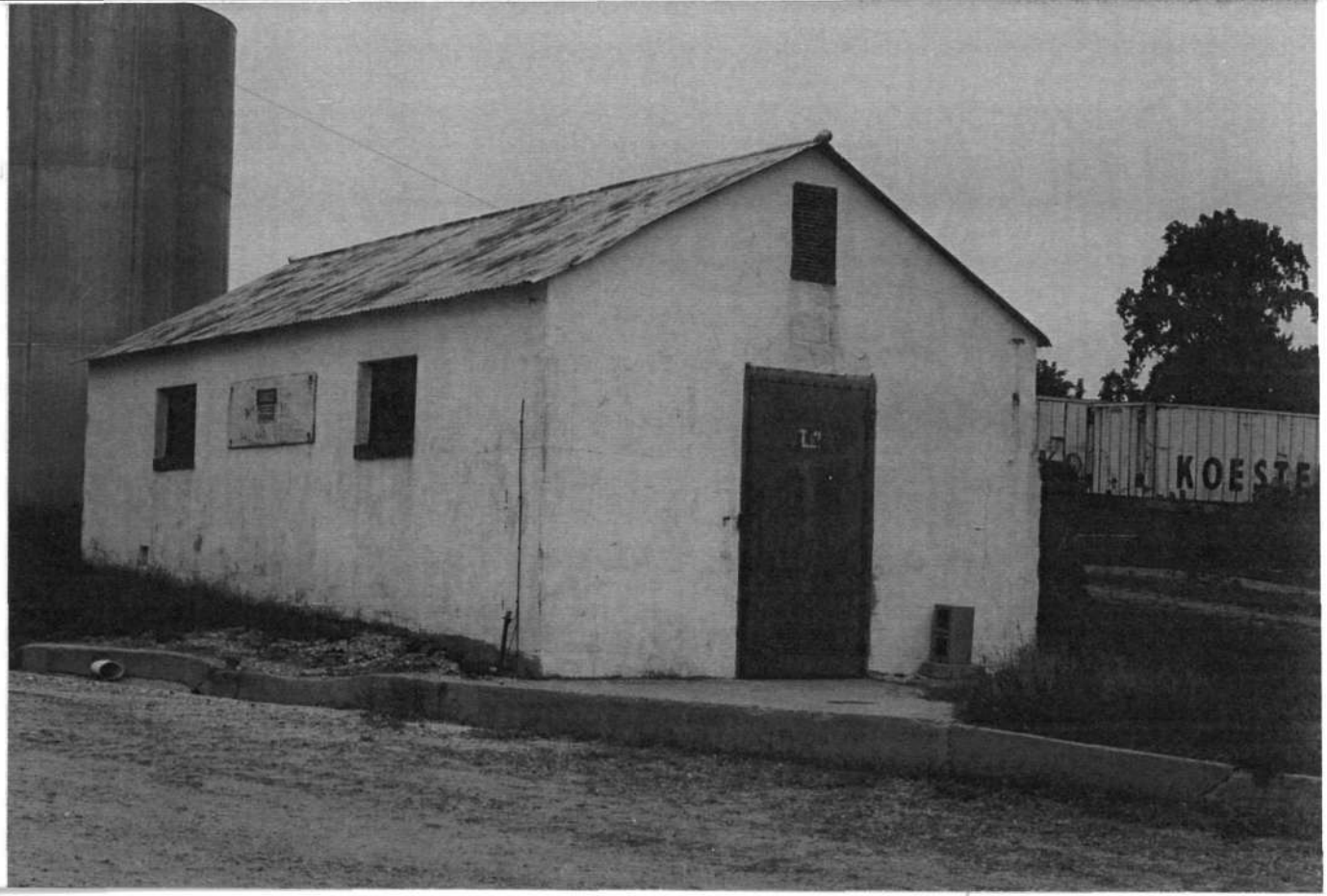
KOESTE

AA-2177

USNA DAIRY FARM
ANNE ARUNDEL
L. CAMPBELL
SEPT. 1996
MD SHPO
NORTH, BUILDING 158

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AA-2177
USNA DAIRY FARM
ANNE ARUNDEL
L. CAMPBELL
SEPT. 1996
MD SHPO
SOUTHEAST - BUILDING 164

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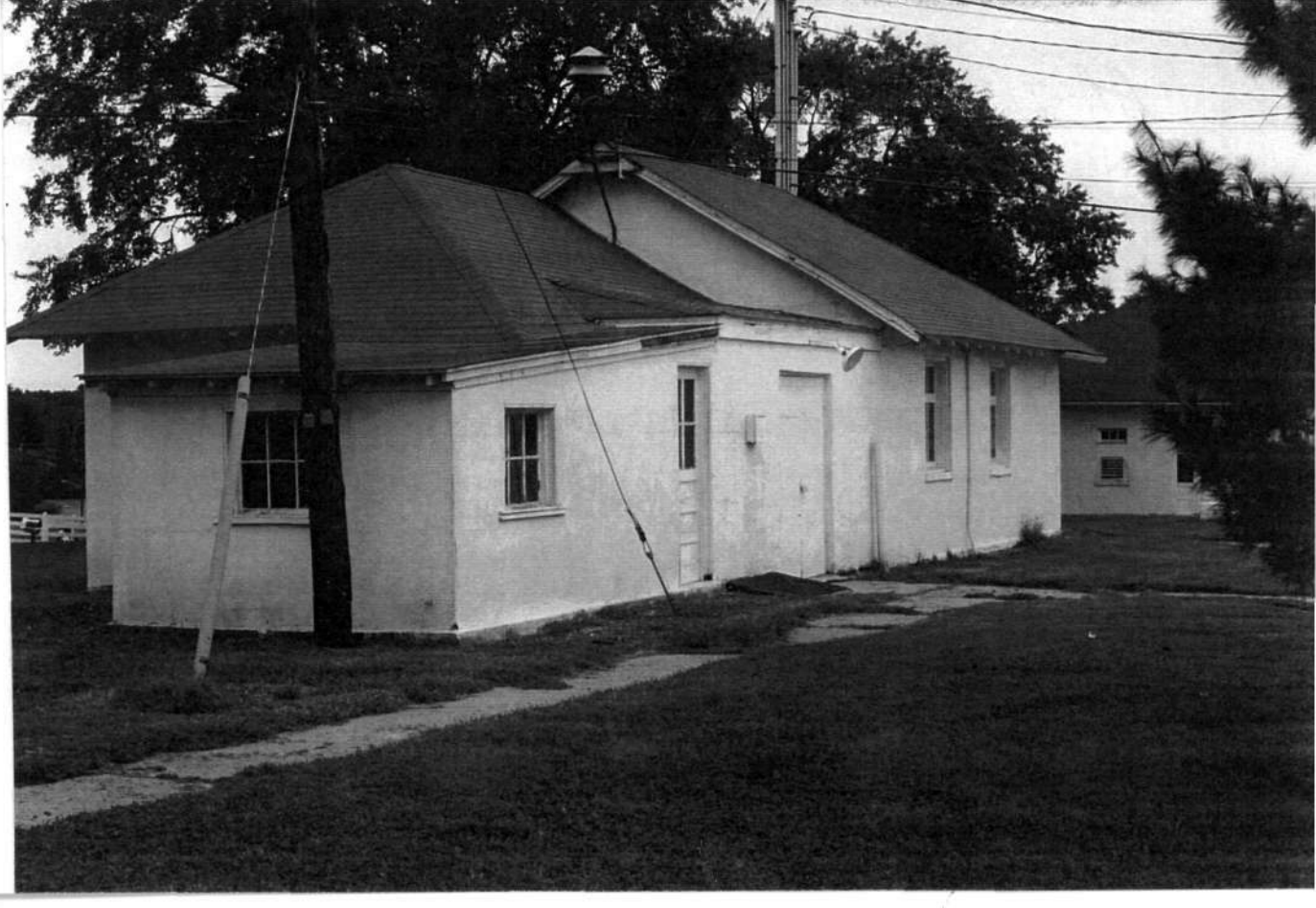

AA-2177
USNA DAIRY FARM
ANNE ARUNDEL
L. CAMPBELL
SEPT. 1996
MD SHPO
EAST. BUILDING 2

< >TCP 03:00 NNNNN:05AU 03C

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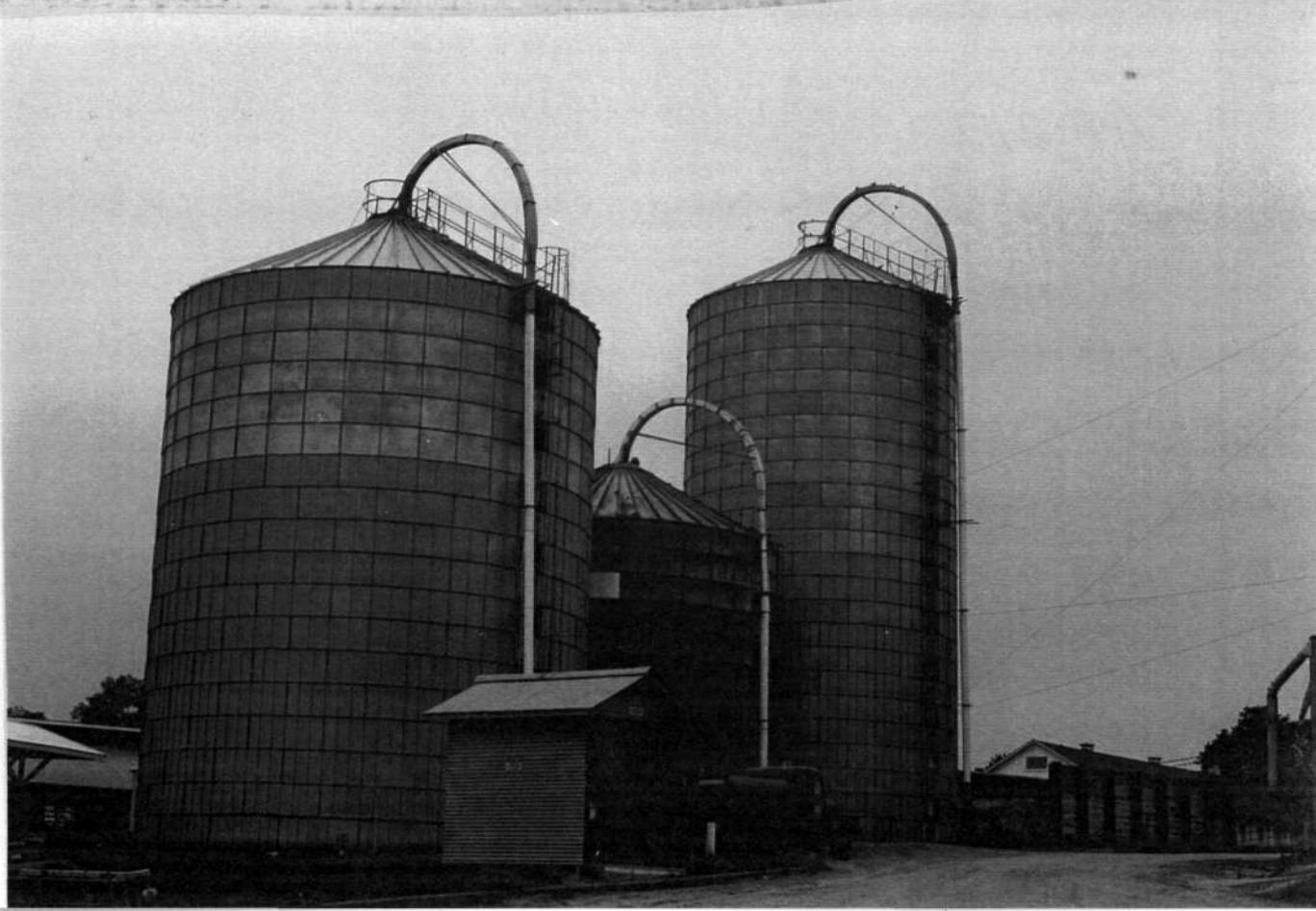

AA-2177
USNA DAIRY FARM
ANNE ARUNDEL
L. CAMPBELL
SEPT. 1996
MD SHPO
NORTH, BUILDINGS 183, 182, 175

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AA-2177
USNA DAIRY FARM
ANNE ARUNDEL
L. CAMPBELL
SEPT. 1996
MD SHPO
SOUTH, BUILDING 38

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AA-2177
USNA DAIRY FARM
ANNE ARUNDEL
L. CAMPBELL
SEPT. 1996
MD SHPO
SOUTH, BUILDINGS 155, 156, 157, 43 (SILOS)

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AA-2177
USNA DAIRY FARM
ANNE ARUNDEL
L. CAMPBELL
SEPT. 1996
MD SHPO
SOUTH, BUILDING 25 PLANAR ELEVATION

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AA-2177
VENA DAIRY FARM
ANNE ARUNDEL
CAMPBELL
SEPT. 1996
MD SHPO
NE, BUILDING 25 REAR AND SIDE ELEVATION

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AA-2177
UNITED STATES NAVAL ACADEMY: DAIRY FARM
ANNE ARUNDEL
L. CAMPBELL
SEPT. 1996
MD SHPO
SOUTH, BUILDING 128, FRONT ELEVATION
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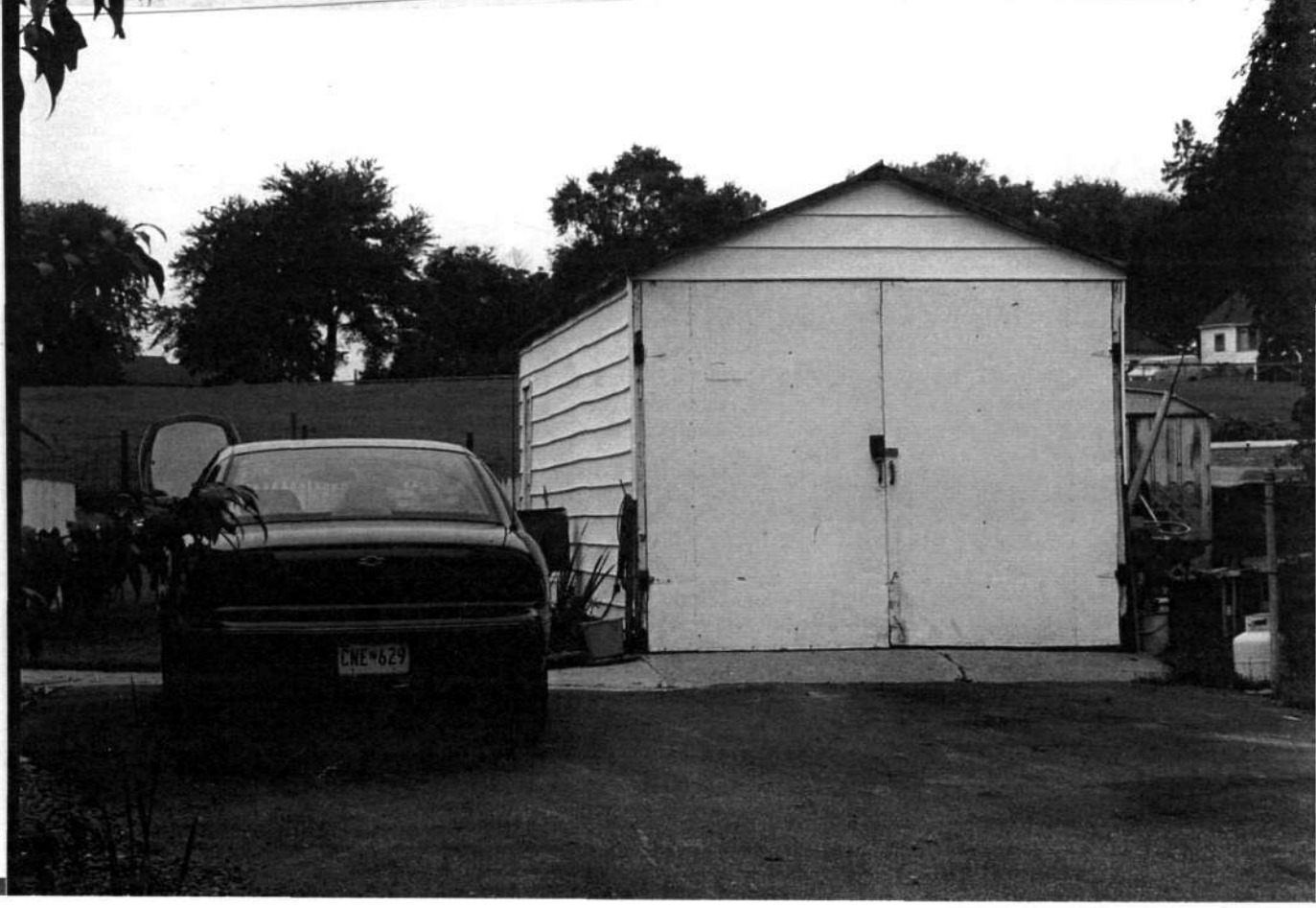
CNE*629

AA-2177
USNA DAIRY FARM
ANNE ARUNDEL
L. CAMPBELL
SEPT. 1996
MD SHPO
SOUTH, BUILDING 143

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AA-2177

USNA DAIRY FARM
ANNE ARUNDEL
L. CAMPBELL
SEPT. 1996
MD SHPO
NORTH, BUILDING 101 FRONT + SIDE

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AA-2177

USNA DAIRY FARM
ANNE ARUNDEL
L. CAMPBELL
SEPT. 1996
MD SHPO
WEST, BUILDING 101A FRONT AND SIDE

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AA-2177

USNA DAIRY FARM
ANNE ARUNDEL
L. CAMPBELL
SEPT. 1996
MD SHPO
NORTH, BUILDING 103, FRONT

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AA-2177
USNA DAIRY FARM
ANNE ARUNDEL
L. CAMPBELL
SEPT. 1996
MD SHPO
SOUTH, BUILDING 108 FRONT

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AA-2177
USNA DAIRY FARM
ANNE ARUNDEL
L. CAMPBELL
SEPT. 1996
MD SHPO
EAST ELEVATION, BUILDING 109

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AA-2177
USNA DAIRY FARM
ANNE ARUNDEL
L. CAMPBELL
SEPT. 1996
MD SHPO
WEST, BUILDING 150, FRONT AND SIDE. SIMI
TO 151, 146, 147, 146.

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AA-2177
OSNA DAIRY FARM
ANNE ARUNDEL
L. CAMPBELL
SEPT. 1996
MD SHPO
NORTH, BUILDING 107 FRONT

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AA-2177

USNA DALGREN HALL

ANNAPOLIS

L. CAMPBELL

SEPT. 1996

MD SHPO

SOUTH, BUILDING 101, SIDE AND REAR

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AA-2177
UNITED STATES NAVAL ACADEMY, DAIRY FARM
ANNE ARUNDEL
L. CAMPBELL
SEPT. 1996
MD SHPO
SOUTH, BUILDING 130, REAR SIDE ELEVATION

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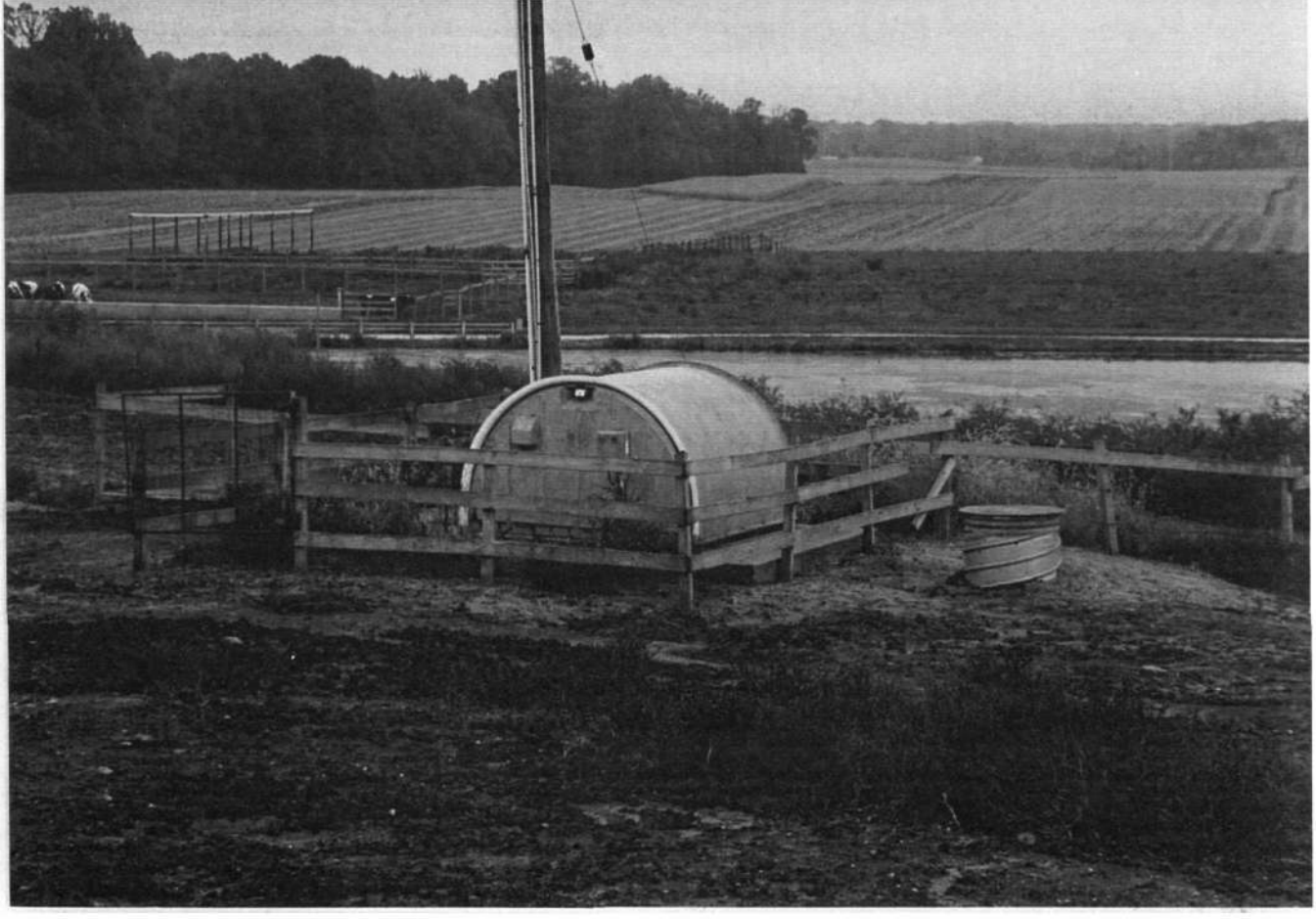

UNITED STATES NAVAL ACADEMY, DAIRY F
ANNAPOLIS
MD
SEPT. 1996
MD SHPO
SOUTH, BUILDING 328, FRONT + SIDE ELEV

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AA-2177
USNA DAIRY FARM
ANNE ARUNDEL
L. CAMPBELL
SEPT. 1996
MD SHPO
SOUTH, BUILDING 11, FRONT AND SIDE

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AA-2177

SEPT. 1996
MD SHPO
(E) ELEVATION, BUILDING 106

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AA-2177
USNA DAIRY FARM
ANNE ARUNDEL
L. CAMPBELL
SEPT 1996
MD SHPO
SOUTH, BUILDING 106, SIDE + FRONT ELEVA

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